

Wake Stone Corporation

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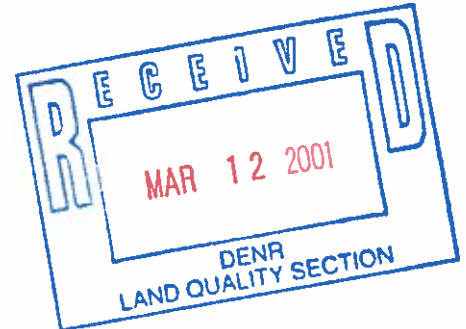
Quarry Phone Numbers:
919/266-9266—Knightdale
919/677-0050—Triangle
919/775-7349—Moncure
252/985-4411—Nash County

Locations:
U.S. 64 East, Raleigh, N.C.
I-40 at Harrison Ave., Cary, N.C.
U.S. 1 at Deep River, Moncure, N.C.
SR 1527 at I-95, Gold Rock, N.C.

Business Office Address:
P.O. Box 190
Knightdale, N.C. 27545
919/266-1100
Fax 919/266-1149

March 9, 2001

Mr. Tracy E. Davis, P.E., Mining Specialist
N. C. DENR - Land Quality Section
512 North Salisbury Street
Raleigh, North Carolina 27611-7687



**Subject: Wake Stone Corporation Triangle Quarry
Mining Permit No. 92-10
Application for Ten-Year Renewal**

Dear Mr. Davis:

Enclosed are four copies of Mining Permit Application material requesting renewal of Mining Permit No. 92-10 for the Triangle Quarry. The enclosed completed Mining Permit Application booklet, revised Site Plan Map, and Conceptualized Reclamation Plan Map document the currently existing site conditions. No new land disturbing activities are planned at this time.

The Triangle Quarry has been successfully operated during the past ten-year permit terms without invoking any of the seven permit denial criteria, and in compliance with applicable mining, water discharge, and air quality regulations. State and Federal permitting and required monitoring under the NPDES/Stormwater and Air Quality programs ensure that continued operation of the quarry will not have adverse effects on wildlife or fisheries, or violate any air or water quality standard. The quarry is well screened from public view by vegetated earthen berms along the public roadways bordering the site, and along the contiguous boundary with Umstead State Park. These vegetated berms provide adequate buffering for neighboring businesses, vehicular traffic along Interstate 40, and visitors to Umstead Park. Designated buffers, stabilized overburden cut slopes, safe blasting practices, and in-place high wall barriers ensure the prevention of physical hazard to any neighboring structures or properties.

Mr. Tracy E. Davis, Mining Specialist
March 9, 2001
Page 2

Wake Stone Corporation has operated the Triangle Quarry since 1982 without violation of any of the State or Federal regulations governing mining. Through well designed mining and sediment and erosion control plans we have prevented the deposition of any sediment in adjoining waterways. Undisturbed vegetated buffers along Crabtree Creek and the Umstead State Park boundary provide adequate buffering to prevent sediment deposition in the creek, while providing visual and sound buffering of the operation.

As indicated on the updated Site Plan Map the amount of land currently covered under this permit is 223.0 acres +/- . This renewal request does not incorporate any additional land disturbance areas as none are planned at this time. As such, the application is for simple renewal of the permit. Pursuant to the Application Fee Schedule we are enclosing our check in the amount of \$500.00 for the permit renewal application-processing fee. If you have any question concerning this renewal request please call me at 266-1100.

Sincerely,
Wake Stone Corporation



David F. Lee
Geologist/Environmental Supervisor

df/
Enclosures



**NORTH CAROLINA DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
LAND QUALITY SECTION
APPLICATION FOR A MINING PERMIT
(PLEASE PRINT OR TYPE)**

1. Name of Mine Wake Stone Corporation Triangle Quarry County Wake
River Basin Neuse
Latitude (dd.mm.ss) 35dd.50mm.57ss North Longitude (dd.mm.ss) 78dd.45mm.57ss West

2. Name of Applicant* Wake Stone Corporation

3. Permanent address for receipt of official mail** PO Box 190
Knightsdale, North Carolina 27545

Telephone (919) 266-1100

4. Mine Office Address 222 Star Lane
Cary, North Carolina 27513 Telephone (919) 677-0050

5. Mine Manager Paul Pierce, Superintendent

We hereby certify that all details contained in this Permit Application are true and correct to the best of our knowledge. We fully understand that any willful misrepresentation of facts will be cause for permit revocation.

***Signature David F. Lee Date 3/9/01

Print Name David F. Lee

Title Geologist/Environmental Supervisor

- * This will be the name that the mining permit will be issued to and the name that must be indicated on the reclamation bond (security) that corresponds to this site.
- ** The Land Quality Section must be notified of any changes in the permanent address or telephone number.
- *** Signature of company officer required.

G.S. 74-51 provides that the Department shall grant or deny an application for a permit within 60 days of receipt of a complete application or, if a public hearing is held, within 30 days following the hearing and the filing of any supplemental information required by the Department. **All questions must be addressed and all required maps provided before this application can be considered complete. Attach additional sheets as needed.**





1 2 3 4 5 6 7 8 9 10 11 12
MAY 19 1964
MAY 19 1964

A. GENERAL CHARACTERISTICS OF THE MINE

Answer all of the following that apply:

1. a. If this is an application for a NEW permit, indicate the total acreage at the site to be covered by the permit (this is the acreage that the "new permit" fee will be based upon): _____

Of this acreage, how much is owned and how much is leased? Acres owned: _____ Acres leased: _____ Property owner if leased: _____

- b. If this is an application for RENEWAL of a mining permit, indicate the mining permit number and the total (overall) acreage covered by the existing permit:
Mining Permit No.: 92-10 Total permitted acreage (this is the acreage that the "renewal" fee will be based upon): 223+/-

- c. If this is an application for a MODIFICATION to a mining permit, indicate the mining permit number and the total (overall) acreage covered by the existing permit: Mining Permit No.: _____ Total permitted acreage: _____

Does the modification involve acreage within the previously approved permitted boundary? Yes ___ No ___. If yes, indicate the acreage to be covered by this modification (this is the acreage that the "major modification" fee will be based upon): _____

Does the modification involve acreage outside the previously approved permitted boundary? Yes ___ No ___. If yes, indicate the additional acreage to be covered by this modification: _____ (NOTE: you must complete all of Section F. of this application form entitled Notification of Adjoining Landowners).

Of this acreage to be added to the permit, will any portion of this acreage be affected (disturbed, ground cover removed) by the mining operation? Yes ___ No ___ (if no, a "minor modification" fee of \$50.00 is required, despite the "undisturbed" acreage to be added). If yes, indicate the acreage to be affected within the acreage to be added to the permit (the total acreage to be added to the permit is the acreage that the "major modification" fee will be based upon): _____

- d. If this is an application for TRANSFER of a mining permit, indicate the mining permit number and the total (overall) acreage covered by the existing permit: Mining Permit No.: _____ Total permitted acreage: _____

SEE THE FEE SCHEDULE AT THE END OF THIS FORM FOR THE PROPER FEE AMOUNT TO BE PAID FOR THE REQUESTED PERMIT ACTION(S) AND CORRESPONDING ACREAGE NOTED ABOVE

2. Name of all materials mined: overburden, saprolite, granitic-type stone bedrock
3. Mining method: Hydraulic Dredge ___ Front-end Loader & Truck X Shovel & Truck X
Dragline & Truck ___ Self-loading Scraper ___ Other (explain) _____
4. a. Expected maximum depth of mine (feet) +40' msl



Depth is relative to what benchmark? (e.g., natural ground level, mean sea level, road elevation, etc.) Mean Sea Level

b. Expected average depth of mine (feet) +80' msl

5. Has any area(s) at this site been mined in the past? Yes X No
If yes, when and by whom was this activity conducted? Since 1982 by Wake Stone Corporation
6. Number of years for which the permit is requested (10 years maximum): 10

B. MAPS

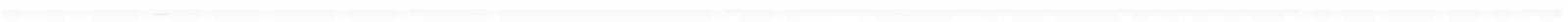
1. Clearly mark and label the location of your mining operation on **six (6) copies** of a 7.5 minute quadrangle and a county highway map. These maps, in addition to **six (6) copies** of all mine maps and reclamation maps, must be submitted with each permit application.

7.5 minute quadrangles may be obtained from:

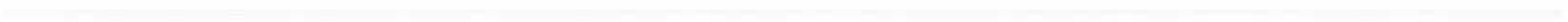
N.C. Geological Survey
NCDENR
1612 Mail Service Center
Raleigh, North Carolina 27699-1612
(919) 715-9718

County highway maps may be obtained from:

Location Department
State Highway Commission
Raleigh, North Carolina 27602
(919) 733-7600



2. Mine maps must be accurate and appropriately scaled drawings, aerial photographs or enlarged topographic maps of the entire mine site. All aspects of the mine site must be clearly labeled on the maps along with their corresponding (approximate) acreage. As a reminder, mining permits can only be issued for up to 10 years; thus, all mine and reclamation maps must only denote those activities that are intended to be conducted during the life of the mining permit. All maps must be of a scale sufficient (see minimum requirements listed below) to clearly illustrate the following, at a minimum:
- a. Property lines of the tract or tracts of land on which the proposed mining activity is to be located including easements and rights-of-way.
 - b. Existing or proposed permit boundaries.
 - c. Initial and ultimate limits of clearing and grading.
 - d. Outline and width of all buffer zones (both undisturbed and unexcavated).
 - e. Outline and acreage of all pits/excavations.
 - f. Outline and acreage of all stockpile areas.
 - g. Outline and acreage of all temporary and/or permanent overburden disposal areas.
 - h. Location and acreage of all processing plants (processing plants may be described as to location and distance from mine if sufficiently far removed).
 - i. Locations and names of all streams, rivers and lakes.
 - j. Outline and acreage of all settling and/or processing wastewater ponds.
 - k. Location and acreage of all planned and existing access roads and on-site haul roads.
 - l. Location of planned and existing on-site buildings.
 - m. Location and dimensions of all proposed sediment and erosion control measures.
 - n. Location of 100 year floodplain limits and wetland boundaries.
 - o. Names of owners of record, both public and private, of all tracts of land that are adjoining the mining permit boundary; if an adjoining tract is owned or leased by the applicant or is owned by the lessor of the mine tract, names of owners of record of tracts adjoining these tracts, that are within 1,000 feet of the mining permit boundary, must be provided on the mine map.
 - p. Names of owners of record, both public and private, of all tracts of land that are adjoining the mining permit boundary which lie directly across and are contiguous to any highway; creek, stream, river, or other watercourse; railroad track; or utility or other public right-of-way; if an adjoining tract is owned or leased by the applicant or is owned by the lessor of the mine tract, names of owners of record of tracts adjoining these tracts, that are within 1,000 feet of the mining permit boundary, must be provided on the mine map(s). NOTE: "Highway" means a road that has four lanes of travel or less and is not designated as an Interstate Highway.
 - q. Map legend:
 1. Name of applicant
 2. Name of mine
 3. North arrow
 4. County
 5. Scale
 6. Symbols used and corresponding names
 7. Date prepared and revised
 8. Name and title of person preparing map



Map scales should meet the following guidelines:

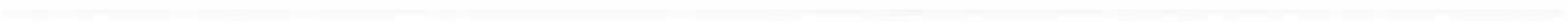
<u>PERMITTED ACREAGE</u>	<u>MAP SCALE</u>
0-99 Acres	1 inch = 50 feet
100-499 Acres	1 inch = 100 feet
500+ Acres	1 inch = 200 feet

(NOTE: Smaller scaled maps may be acceptable if they clearly illustrate the above items)

A table/chart must be provided on the mine map that clearly lists the approximate acreage of tailings/sediment ponds, stockpiles, waste piles, processing area/haul roads, mine excavation and any other major aspect of the mining operation that is proposed to be affected/disturbed during the life of the mining permit. A table/chart similar to the following will be acceptable:

CATEGORY	AFFECTED ACREAGE
Tailings/Sediment Ponds	
Stockpiles	
Waste piles	
Processing Area/Haul Roads	
Mine Excavation	
Other	

NOTE: IN ADDITION TO THE ABOVE, THE MAPS MUST ALSO INCLUDE ANY SITE-SPECIFIC INFORMATION THAT IS PROVIDED IN THE ANSWERS TO THE FOLLOWING QUESTIONS IN THIS APPLICATION FORM (*PLEASE NOTE THE ITALICIZED QUESTIONS/STATEMENTS THROUGHOUT THE FORM*). THIS APPLICATION WILL NOT BE CONSIDERED COMPLETE WITHOUT ALL RELEVANT ITEMS BEING ADEQUATELY ADDRESSED ON THE MINE MAPS.



APPLICATION FOR A MINING PERMIT

C. PROTECTION OF NATURAL RESOURCES

1. Describe in detail the sequence of events for the development and operation of the mine and *reference the sequence to the mine map(s)*. Attach additional sheets as needed.

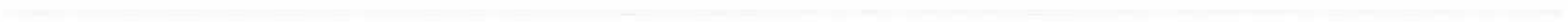
Triangle Quarry is a currently active crushed stone quarry operation. This application is for renewal of the current mining permit. No new land disturbance activities or expansion activities are planned at this time. Mining of fine grained granitic-type bedrock for the production of crushed stone construction aggregate will continue through the new permit term.

2. Describe specific erosion control measures to be installed prior to land disturbing activities and during mining to prevent offsite sedimentation (*include specific plans for sediment and erosion control for mine excavation(s), waste piles, access/mine roads and process areas*), and give a detailed sequence of installation and schedule for maintenance of the measures. *Locate and label all sediment and erosion control measures on the mine map(s) and provide typical cross-sections/construction details of each measure.* Engineering designs and calculations shall be required when needed to justify the adequacy of any proposed measures.

Currently existing erosion control measures are indicated on the Site Plan map. No new expansion activities are planned under this renewal request. Therefore, no new erosion control measures are anticipated.

3. a. Will the operation involve washing the material mined, recycling process water, or other waste water handling? Yes X No _____. If yes, briefly describe all such processes including any chemicals to be used.

A three deck rinse screen is utilized for production of washed stone. Process wash water is retained in a closed-loop recycle system consisting of a reservoir and three settling ponds, pumps and piping equipment. Wash plant overflow returns to the closed loop system for settling of fines. A hydrocyclone fines recovery system is currently being installed to increase recovery of mineral fines contained in the process water overflow. Mineral fines recovered by the hydro-cyclone and associated high frequency screen or excavated from the settling ponds are blended with over burden material and removed from the site by grading contractors as borrow/fill material.



APPLICATION FOR A MINING PERMIT

- b. Will the operation involve discharging fresh or waste water from the mine or plant as a point discharge to the waters of the State? Yes X No _____. *If yes, briefly describe the nature of the discharge and locate all proposed discharge points (along with their method of stabilization) on your mine map(s).*

Accumulated groundwater and runoff water is collected in a sump in the pit and pumped to the reservoir when needed as make-up water in the process water closed loop. When not needed as make-up water, this accumulated water is discharged under NPDES/Stormwater General Permit No. NCG020001 to an un-named tributary to Crabtree Creek. Discharge is through the reservoir emergency spillway.

- c. Will any part of the proposed mine excavation(s) extend below the water table? Yes X No _____. *If yes, do you intend to dewater the excavation(s)? Yes X No _____. If yes, what impact, if any, will mine dewatering have on neighboring wells? Estimated withdrawal rate in gallons per day: 120,000. *Locate all existing wells on the mine map(s) that lie within 500 feet of the proposed excavation area.* Provide data to support any conclusions or statements made, including any monitoring well data, well construction data and current water withdrawal rates. Indicate whether the proposed mine locale is served by a public water system or private wells.*

No non-company owned wells are known to exist within 500 feet of the mine excavation area.

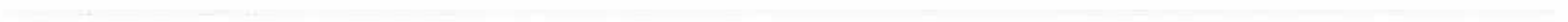
Company owned wells are located and delineated on the Site Plan Map. The surrounding area is served by Cary's public water system.

- d. If you answered yes to any of the above questions, provide evidence that you have applied for or obtained the appropriate water quality permit(s) (i.e., non-discharge, NPDES, Stormwater, etc.) from the Division of Water Quality, Water Quality Section. In addition, the applicant is required to register water use with the Division of Water Resources if the operation withdraws more than 100,000 gallons per day and needs a capacity use permit from the Division of Water Resources if the operation lies in a capacity use area and withdraws more than 100,000 gallons per day.

A copy of the cover sheet of NPDES/Stormwater General Permit No. NCG020001 is inserted after this page as evidence of NPDES Permit coverage.

4. a. Will the operation involve crushing or any other air contaminant emissions? Yes X No _____. *If yes, indicate evidence that you have applied for or obtained an air quality permit issued by the Division of Air Quality or local governing body.*

A copy of the cover sheet of NC DAQ Air Quality Permit No. 4386R12 is inserted after this page as evidence of DAQ permit coverage.



State of North Carolina
Department of Environment
and Natural Resources
Division of Water Quality

James B. Hunt, Jr., Governor
Bill Holman, Secretary
Kerr T. Stevens, Director



December 17, 1999

DAVID F. LEE
WAKE STONE CORP. - TRIANGLE QUARRY
P.O. BOX 190
KNIGHTDALE, NC 27545

Subject: Reissue - NPDES Stormwater Permit
Wake Stone Corp. - Triangle Quarry
COC Number NCG020001
Wake County

Dear Permittee:

In response to your renewal application for continued coverage under general permit NCG020000, the Division of Water Quality (DWQ) is forwarding herewith the reissued stormwater general permit. This permit is reissued pursuant to the requirements of North Carolina General Statute 143-215.1 and the Memorandum of Agreement between the state of North Carolina and the U.S. Environmental Protection Agency, dated December 6, 1983.

The following information is included with your permit package:

- * A copy of general stormwater permit NCG020000
- * Five copies of the Analytical Monitoring form and five copies of the Qualitative Monitoring form
- * A copy of a Technical Bulletin on this permit which outlines permit components and addresses frequently asked questions
- * A Certificate of Coverage for your facility
- * DWQ fee schedule

Your coverage under this general permit is not transferable except after notice to DWQ. The Division may require modification or revocation and reissuance of the Certificate of Coverage. This permit does not affect the legal requirements to obtain other permits which may be required by DENR or relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law rule, standard, ordinance, order, judgment, or decree.

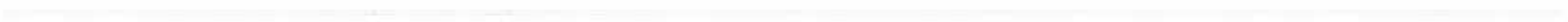
Please note that in 1998 Senate Bill 1366 established changes to the permit fee structure for DWQ permits effective January 1, 1999. This change requires that you pay an annual fee to assure continued coverage under this permit. You will be invoiced for this fee beginning next year. A copy of the current fee schedule is included with this letter.

If you have any questions regarding this permit package please contact Tony Evans of the Central Office Stormwater and General Permits Unit at (919) 733-5083, ext. 584

Sincerely,

for Kerr T. Stevens
Director, Division of Water Quality

cc: Central Files
Raleigh Regional Office



STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WATER QUALITY

GENERAL PERMIT NO. NCG020000
CERTIFICATE OF COVERAGE No. NCG020001

STORMWATER AND PROCESS WASTEWATER DISCHARGES

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

WAKE STONE CORP.

is hereby authorized to discharge stormwater and to operate or continue operation of treatment systems and discharges associated with mine dewatering and process wastewater from a facility located at

WAKE STONE CORP. - TRIANGLE QUARRY
222 STAR LANE
CARY
WAKE COUNTY

to receiving waters designated as Crabtree Creek in the Neuse River Basin in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, IV, V, and VI of General Permit No. NCG020000 as attached.

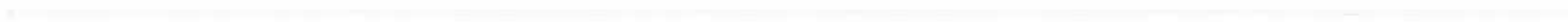
This certificate of coverage shall become effective December 17, 1999.

This Certificate of Coverage shall remain in effect for the duration of the General Permit.

Signed this day December 17, 1999.

Bradley Bennett

for Kerr T. Stevens, Director
Division of Water Quality
By Authority of the Environmental Management Commission



May 21, 1999

Mr. David F. Lee
Environmental Supervisor
Wake Stone Corporation
P.O. Box 190
Knightdale, North Carolina 27545

Subject: **Air Permit No. 4386R12**
AIR PERMIT FOR SAND, GRAVEL, AND
CRUSHED STONE OPERATIONS
Wake Stone Corporation
Triangle Quarry
Cary, North Carolina, Wake County
Fee Class: Small
Site Number: 5/92/00409

Dear Mr. Lee:

In accordance with your completed application received February 23, 1999, we are forwarding herewith Air Permit No. 4386R12 to Wake Stone Corporation-Triangle Quarry, Cary, Wake County, North Carolina for the construction and operation of air emission sources or air cleaning devices and appurtenances.

If any parts, requirements, or limitations contained in this Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within thirty (30) days following receipt of this Permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to G.S. 150B-23 of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, Post Office Drawer 27447, Raleigh, North Carolina 27611-7447. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Director of the Division of Air Quality. Unless a request for a hearing is made pursuant to G.S. 150B-23, this Air Permit shall be final and binding.

You may request modification of your Air Permit through informal means pursuant to G.S. 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that the permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under G.S. 150B-23.

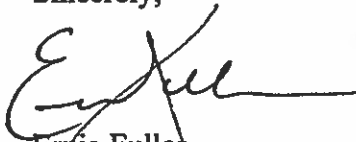


Unless exempted by a condition of this Permit or the regulations, construction of new air pollution sources or air cleaning devices, or modifications to the sources contained in this Permit must be covered under a Permit issued by this Division prior to construction. Specific Condition A.3 of this permit requires written notification to the regional office in the form of a revised equipment list and a plant layout or flow diagram each time any equipment is installed or relocated within the plant. It further requires that you determine whether new equipment is subject to 40 CFR Subpart 000 (New Source Performance Standards) and to include that determination in the revised equipment list. Failure to do so is a violation of General Statute 143-215.108 and will subject the Permittee to civil or criminal penalties contained in General Statute 143-215.114A.

This Permit shall be effective from May 21, 1999 until April 30, 2004, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Eric Newsome at (919) 571-4700.

Sincerely,

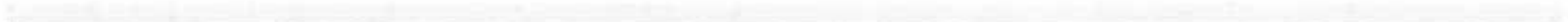
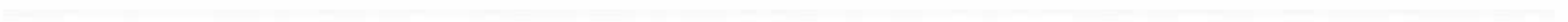


Eric Fuller
Air Quality Regional Supervisor

men:

Enclosures

c: Laura Butler, DAQ Headquarters
Central Files
RRO Files



NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF AIR QUALITY

AIR PERMIT NO. 4386R12

Issue Date: May 21, 1999

Effective Date: May 21, 1999

Expiration Date: April 30, 2004

Replaces Permit: 4386R11

In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules and Regulations,

Wake Stone Corporation
Triangle Quarry
222 Star Lane
Cary, Wake County, North Carolina
Fee Class: Small
Site Number: 05/92/00409

(the Permittee) is hereby authorized to construct and operate air emission sources and/or air cleaning devices and appurtenances consisting of:

1. Nonmetallic mineral processing equipment including but not limited to crushers, screens, conveyors and loadout bins (Standard Industrial Classification Code (SIC) 1422, 1423, 1429, 1442),
2. Diesel fired generator(s) with a facility-wide total power output capacity not to exceed 736 HP (549 kW electric)) at any one time,

in accordance with the completed application (APP# 9200409.99A) received February 23, 1999, including all plans, specifications, previous applications, and other supporting data, all of which are filed with the Department of Environment and Natural Resources and are incorporated as part of this Permit.

The permitted facility is subject to the following specified conditions and limitations including any TESTING, REPORTING, OR MONITORING REQUIREMENTS:



NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES

DIVISION OF AIR QUALITY

AIR PERMIT NO. 8330

Issue Date: July 31, 1996

Effective Date: July 31, 1996

Expiration Date: June 30, 2001

Replaces Permit: NA

To construct and operate air emission source(s) and/or air cleaning device(s), and for the discharge of the associated air contaminants into the atmosphere. In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules and Regulations,

**WAKE STONE CORPORATION
PORTABLE "PROCESS FILL" PLANT**

Triangle Quarry
222 Star Lane
Cary, Wake County, North Carolina

Knightdale Quarry
6721 US Highway 64
Knightdale, Wake County, North Carolina

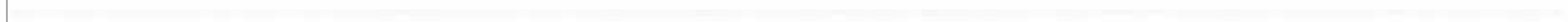
Moncure Quarry
Old US Hwy 1 at Deep River
Moncure, Lee County, North Carolina

NASH COUNTY QUARRY
Gold Rock Plant
Intersection of State Road 1527 and State Road 1528
Gold Rock, Nash County, North Carolina

(the Permittee) is hereby authorized to construct and operate air emission sources and/or air cleaning devices and appurtenances consisting of:

- NSPS (a) one 25 ton sand bin (ID No. SND),
(b) one 42" x 16' vibratory feeder (ID No. C1-FDR),

14'



APPLICATION FOR A MINING PERMIT

- b. How will dust from stockpiles, haul roads, etc., be controlled?

Fugitive dust from processing equipment, stockpiles, and haul roads is controlled through the use of a water truck. Dust suppressant chemicals (chloride solutions) are periodically applied to haul roads and sales yard areas.

5. a. A buffer will be required between any mining activity and any mining permit boundary or right-of-way. It may be an unexcavated buffer (no excavation, but roadways, berms and erosion & sedimentation control measures may be installed within it), an undisturbed buffer (no disturbance within the buffer whatsoever), or a combination of the two, depending upon the site conditions. Note that all buffers must be located within the mining permit boundaries.

How wide a buffer will be maintained between any mining activity and any mining permit boundary or right-of-way at this site? A minimum buffer of 25 feet is recommended, although a wider buffer may be needed depending on site conditions. *Show all buffer locations and widths on the mine map(s).*

West side along Crabtree Creek – 100' undisturbed vegetated buffer.

North side along Crabtree Creek and Umstead State Park – 250' Unexcavated buffer.

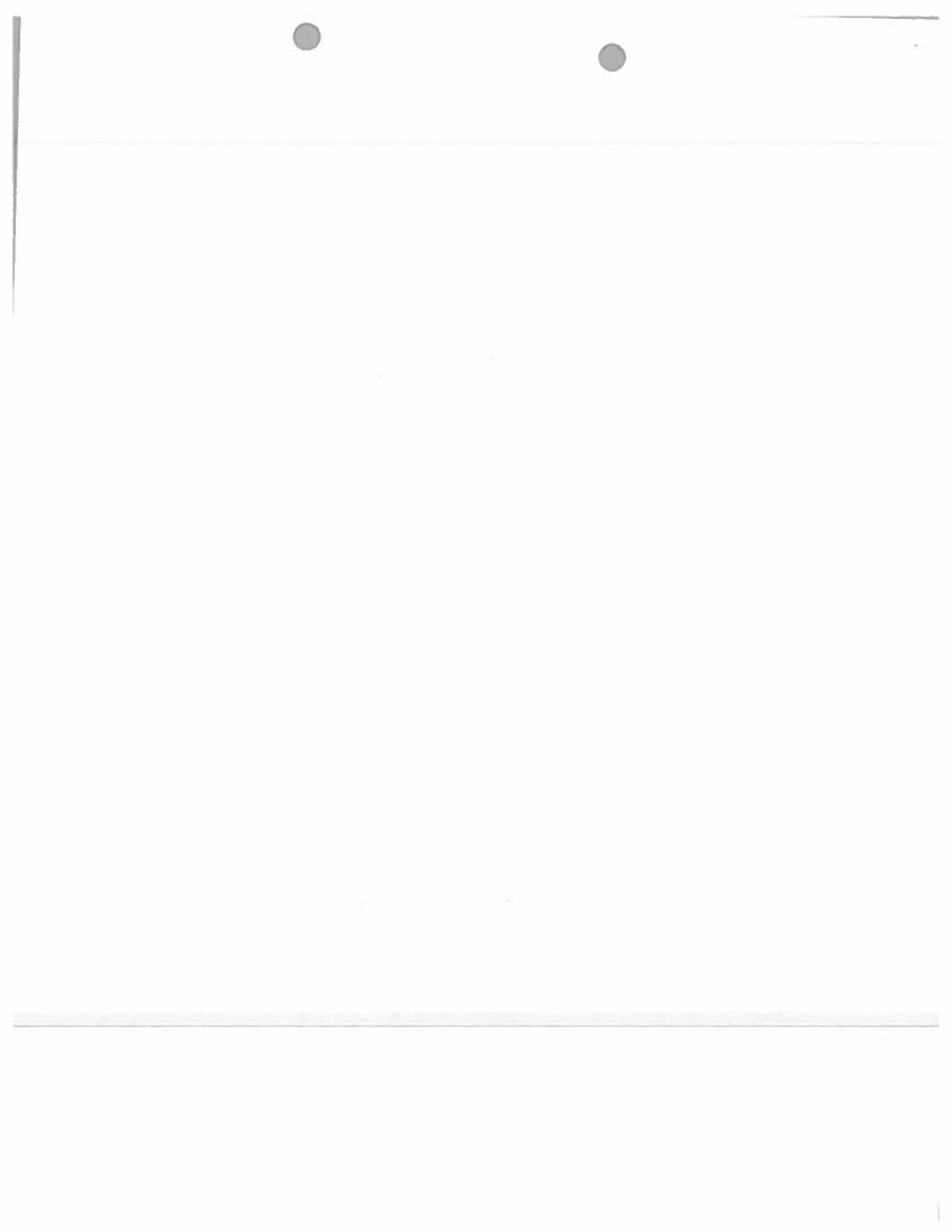
East side along Umstead State Park – 100' unexcavated buffer containing vegetated earthen berm.

All buffers are noted on Site Plan Map.

- b. A minimum 50 foot wide undisturbed buffer will be required between any land disturbing activities within the mining permit boundaries and any natural watercourses and wetlands unless smaller undisturbed buffers can be justified. Depending on site conditions, a buffer wider than 50 feet may be needed.

How wide an undisturbed buffer will be maintained between any land disturbing activities within the mining permit boundaries and any natural watercourses and wetlands at this site? *Show all buffer locations and widths on the mine map(s).*

No land disturbing activities are currently underway or planned within 50' of any on-site natural watercourse or wetland.



APPLICATION FOR A MINING PERMIT

6. a. Describe methods to prevent landslide or slope instability adjacent to adjoining permit boundaries during mining. Minimum 2 horizontal to 1 vertical slopes or flatter for clayey material and minimum 3 horizontal to 1 vertical slopes or flatter for sandy material are generally required, unless technical justification can be provided to allow steeper slopes.

Graded overburden cut slopes are maintained at a maximum gradient of 2H:1V and stabilized with vegetation.

- b. *Provide a cross-section on the mine map(s) for all fill slopes (berms, wastepiles, overburden disposal areas, etc.), clearly indicating the intended side slope gradient, installation of any benches and/or slope drains (with supporting design information) if needed, and the method of final stabilization.*

See Site Plan Map.

- c. In excavation(s) of unconsolidated (non-rock) materials, specify the angle of all cut slopes including specifications for benching and sloping. *Cross-sections for all cut slopes must be provided on the mine map(s).*

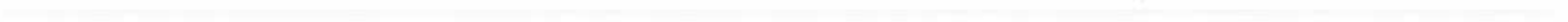
Graded overburden cut slopes are, and will continue to be established at a maximum gradient of 2H:1V.

- d. In hardrock excavations, specify proposed bench widths and heights in feet. *Provide cross-sections of the mine excavation clearly noting the angles of the cut slopes, widths of all safety benches and mine benches, and the expected maximum depth of the excavation.*

Continuing excavations in bedrock will utilize 40' bench heights. Bench width will vary according to ongoing mine development plans.

7. Describe other methods to be taken during mining to prevent physical hazard to any neighboring dwelling house, public road, public, commercial or industrial building from any mine excavation. *Locate all such structures on the mine map if they are within 300 feet of any proposed excavation.*

No such structures exist within 300 feet of any existing or proposed excavation. Strict adherence to permit conditions and currently accepted blasting guidelines prevent blasting related physical hazard to any neighboring house, road, or building.



APPLICATION FOR A MINING PERMIT

8. Describe what kind of barricade will be used to prevent inadvertent public access along any high wall area and when it will be implemented. Vegetated earthen berms, appropriate fencing and adequate boulder barriers may be acceptable high wall barricades. *A construction detail/cross-section and location of each type of barricade to be used must be indicated on the mine map(s).*

End-to-end boulder barriers and vegetated earthen berms are currently in place along highwalls. Fencing is currently in place along southern property boundary (R/W I-40). Warning/Posted signs are in place along all property boundaries.

9. Are acid producing minerals or soils present? Yes _____ No X. How will acid water pollution from the excavation, stockpiles and waste areas be controlled?

10. a. Describe specific plans (including a schedule of implementation) for screening the operation from public view such as maintaining or planting trees, bushes or other vegetation, building berms or other measures. *Show the location of all visual screening on the mine map(s) and provide cross-sections through all proposed berms or proposed spacings, sizes and species for tree plantings.*

Triangle Quarry has been in operation since 1982. The site is screened on all sides by vegetated earthen berms or expansive vegetation.

- b. Could the operation have a significantly adverse effect on the purposes of a publicly owned park, forest or recreation area? If so, how will such effects (i.e., noise, visibility, etc.) be mitigated?

Triangle Quarry has operated for the past 20 years without posing significantly adverse impacts to publicly owned Umstead Park which is adjacent to the site.

11. Will explosives be used? Yes X No _____. If yes, specify the types of explosive(s) and describe what precaution(s) will be used to prevent physical hazard to persons or neighboring property from flying rocks or excessive air blasts or ground vibrations. Depending on the mine's location to nearby structures, more detailed technical information may be required on the blasting program (such as a third-party blasting study). *Locate the nearest offsite occupied structure(s) to the proposed excavation(s) on the mine map and indicate its approximate distance to the proposed excavation.*

Blasting is conducted nearly daily at the Triangle Quarry utilizing latest industry methods and technology. All blasts are monitored by seismograph, and all blasts comply with airblast and ground vibration limits dictated by the Mining Permit.

12. Will fuel tanks, solvents, or other chemical reagents be stored on-site? Yes X No _____. If yes, describe these materials, how they will be stored and method of containment in case of spill. Indicate the location(s) of all storage facilities on the mine map(s).

Fuels and lubricants are stored within a concrete retaining wall at the fuel/lube station as noted on the Site Plan Map.



D. RECLAMATION PLAN

1. Describe your intended plan for the final reclamation and subsequent use of all affected lands and indicate the sequence and general methods to be used in reclaiming this land. This must include the method of reclamation of settling ponds and/or sediment control basins and the method of restoration or establishment of any permanent drainage channels to a condition minimizing erosion, siltation and other pollution. *This information must be illustrated on a reclamation map and must correspond directly with the information provided on the mine map(s). In addition, design information, including typical cross-sections, of any permanent channels to be constructed as part of the reclamation plan and the location(s) of all permanent channels must be indicated on the reclamation map.*

Once depleted of reserves the pit will be allowed to fill with groundwater/runoff waters to create a lake with water surface elevation at approximately +270' msl. All plant components will be disassembled and removed from the site. All stockpiles will be removed and the plant and stockpile areas graded to provide positive drainage. Bare land surfaces will be provided with vegetative cover according to future land use plans, which are undetermined at this time. Process water settling ponds and obsolete sediment basins will be backfilled and stabilized with vegetation.

2. Is an excavated or impounded body of water to be left as a part of the reclamation? Yes X
No _____. *If yes, illustrate the location of the body(s) of water on the reclamation map and provide a scaled cross-section(s) through the proposed body(s) of water. The minimum water depth must be at least 4 feet, measured from the normal low water table elevation, unless information is provided to indicate that a more shallow water body will be productive and beneficial at this site. Will the body(s) of water be stocked with fish? Yes _____ No _____. If yes, specify species.*

It is undecided at this time if the post reclamation lake will be stocked with fish.

3. Describe provisions for safety to persons and to adjoining property in all completed excavations in rock including what kind of permanent barricade will be left. Acceptable permanent barricades are appropriate fencing, large boulders placed end-to-end, etc. *Construction details and locations of all permanent barricades must be shown on the reclamation map.*

Acceptable fencing, such as woven wire right-of-way type fencing with barbed wire top strand or chain-link fencing will be installed as determined to be necessary upon final reclamation. Large boulders placed end-to-end may be used in some instances.



4. Indicate the method(s) of reclamation of overburden, refuse, spoil banks or other such on-site mine waste areas, including specifications for benching and sloping. *Final cross-sections and locations for such areas must be provided on the reclamation map.*

Reclamation of overburden cut slopes and earthen berms constructed of overburden are reclaimed concurrent with on-going mining activities. Overburden cut slopes and berm fill slopes are established at 2H:1V gradients and stabilized with various grasses and legumes, and planted with loblolly pines.

5. a. Describe reclamation of processing facilities, stockpile areas, and on-site roadways.

All plant equipment will be disassembled and removed from the site. Stockpiles will be depleted and all sales yard areas re-graded to provide positive drainage, and stabilized with vegetation in accordance with future land development plans to be determined upon final reclamation.

- b. Will any on-site roadways be left as part of the reclamation? Yes X No _____. *If yes, identify such roadways on the reclamation map and provide details on permanent ditch line stabilization. The main site entrance road and a perimeter roadway around the completed pit area will remain on-site for general access and maintenance. Permanent ditches will be stabilized with rip rap or vegetation as dictated by site conditions existing upon completion of operations.*

6. Describe the method of control of contaminants and disposal of scrap metal, junk machinery, cables, or other such waste products of mining. (Note definition of refuse in The Mining Act of 1971). **No off-site generated waste shall be disposed of on the mine site without prior written approval from the NC Department of Environment and Natural Resources, Land Quality Section and either the Division of Waste Management (DWM) or local governing body. If a disposal permit has been issued by DWM for the site, a copy of said permit must be attached to this application. All temporary and permanent refuse disposal areas must be clearly delineated on the mine map(s) and reclamation map, along with a list of items to be disposed in said areas.**

All such scrap will be disposed of off-site in proper recycling and disposal facilities.



10

7. Describe your plan for revegetation or other surface treatment of the affected areas. This plan must include recommendations for year-round seeding, including the time of seeding and the amount and type of seed, fertilizer, lime and mulch per acre. The recommendations must include general seeding instructions for permanent revegetation and, if necessary, temporary revegetation. Revegetation utilizing only tree plantings is not acceptable. Recommendations can be sought from:
- a. Authorized representatives of the local Soil and Water Conservation District;
 - b. Authorized representatives of the Division of Forest Resources, Department of Environment and Natural Resources;
 - c. Authorized county representatives of the North Carolina Cooperative Extension Service, specialists and research faculty with the Colleges of Agriculture and Life Sciences and Forest Resources at North Carolina State University;
 - d. North Carolina licensed landscape architects;
 - e. Private consulting foresters referred by the Division of Forest Resources, Department of Environment and Natural Resources;
 - f. N.C. Erosion and Sedimentation Control Planning and Design Manual;
 - g. N.C. Surface Mining Manual: A Guide for Permitting, Operation and Reclamation;
 - h. Others as may be approved by the Department.

LIME - RATE OF APPLICATION (tons/acre):

FERTILIZER - ANALYSIS AND RATE OF APPLICATION (pounds/acre):

SEED - TYPE(S) AND RATE(S) OF APPLICATION INCLUDING YEAR-ROUND SEEDING SCHEDULE (pounds/acre): [NOTE: Include Legumes]

Seed Types:

Seeding Dates:

Seeding Rates:

MULCH - TYPE AND RATE OF APPLICATION (pounds/acre) AND METHOD OF ANCHORING:

OTHER VEGETATIVE COVERS - TYPE(S) AND RATE(S) OF APPLICATION INCLUDING SEEDING SCHEDULE (pounds/acre, trees/acre, spacing of trees/shrubs, etc):

Revegetation and/or reforestation plan approved by:

Signature _____ Date _____

Print Name _____

Title _____

Agency _____



E. DETERMINATION OF AFFECTED ACREAGE AND BOND

The following bond calculation worksheet is to be used to establish an appropriate bond (based upon a range of \$500 to \$5,000 per affected acre) for each permitted mine site based upon the acreage approved by the Department to be affected during the life of the mining permit. Please insert the approximate acreage, for each aspect of the mining operation, that you intend to affect during the life of this mining permit (in addition, please insert the appropriate reclamation cost/acre for each category from the Schedule of Reclamation Costs provided with this application form) OR you can defer to the Department to calculate your bond for you based upon your maps and standard reclamation costs:

CATEGORY ACREAGE	AFFECTED COST/ACRE*		RECLAMATION COST	RECLAMATION COST
Tailings/Sediment Ponds:	_____ Ac.	X	\$ _____ /Ac.	= \$ _____
Stockpiles:	_____ Ac.	X	\$ _____ /Ac.	= \$ _____
Wastepiles:	_____ Ac.	X	\$ _____ /Ac.	= \$ _____
Processing Area/Haul Roads:	_____ Ac.	X	\$ _____ /Ac.	= \$ _____
Mine Excavation:	_____ Ac.	X	\$ _____ /Ac.	= \$ _____
Other:	_____ Ac.	X	\$ _____ /Ac.	= \$ _____

TOTAL AFFECTED AC.: _____ Ac. **(TOTAL PERMITTED AC.:** _____ Ac.)

Temporary & Permanent Sedimentation & Erosion Control Measures:

Divide the **TOTAL AFFECTED AC.** above into the following two categories: a) affected acres that drain into proposed/existing excavation and/or b) affected acres that will be graded for positive drainage where measures will be needed to prevent offsite sedimentation and sedimentation to onsite watercourses and wetlands.

a) Internal Drainage _____ Ac.
 b) Positive Drainage _____ Ac. X \$1,500.00=\$ _____ **SUBTOTAL**

COST: \$

Inflation Factor:

0.02 X SUBTOTAL COST: \$ _____ X Permit Life (1 to 10 years): _____

INFLATION COST: \$ _____



**Triangle Quarry is covered under Wake Stone Corporation's Blanket Bond
 Copy of Blanket Bond Attached.**



ASSIGNMENT OF SAVINGS ACCOUNT

This Assignment, made and entered into the 7th day of October, 1999, by and between Wake Stone Corp.,
 of 6721 Hwy 64 East, city of Knightdale,
 County of Wake, State of North Carolina and the
 North Carolina Department of Environment, Health, and Natural Resources;
 and

WHEREAS, The undersigned Wake Stone Corp.
 (operator)

(hereinafter referred to as "Operator") is desirous of engaging in mining operations in the State of North Carolina and such mining operations are subject to the provisions of the Mining Act of 1971, Article 7, Chapter 74 of the General Statutes of North Carolina; and

WHEREAS, NCGS 74-50 requires that mine operators obtain a permit from the Department of Environment, Health, and Natural Resources (hereinafter referred to as "Department") before engaging in mining operations, and NCGS 74-54 requires that a surety bond in favor of the State be maintained or other security be filed with the Department, in connection with said permit; and

WHEREAS, Operator has a savings account in Central Carolina Bank
 at 208 N. Arendell Avenue, City of
Zebulon County of Wake, State of
 North Carolina, Savings Account No. * [REDACTED]; and

WHEREAS, NCGS 74-54 authorizes the Department to accept from Operator an assignment of a savings account in a North Carolina bank, in lieu of a surety bond;

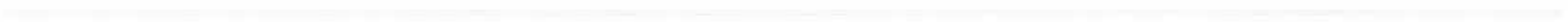
NOW, THEREFORE, in consideration of the premises and the Department accepting an assignment of said savings account in lieu of a surety bond, the undersigned Operator does hereby sell, assign, transfer, set over to the Department of Environment, Health, and Natural Resources

Five Hundred Thousand dollars (\$500,000⁰⁰) of the sum on
 deposit in his name in Central Carolina Bank, City of
Zebulon County of Wake, State of

North Carolina, Savings Account No. * 894567203 and

further authorizes Central Carolina Bank to pay over to the
 Department of Environment, Health, and Natural Resources the above sum

of Five Hundred Thousand dollars (\$500,000⁰⁰) out of the above
 money deposit in the above account in his name.



F. NOTIFICATION OF ADJOINING LANDOWNERS

The "Notice" form, or a facsimile thereof, attached to this application must be sent certified or registered mail to:

- (1) the chief administrative officer of each county and municipality in which any part of the permitted area is located as indicated on the mine map(s);**
- (2) all owners of record, both public and private, of all tracts of land that are adjoining the mining permit boundary; if an adjoining tract is owned or leased by the applicant or is owned by the lessor of the mine tract, all owners of record of tracts adjoining these tracts must be notified (that are within 1,000 feet of the mining permit boundary) as indicated on the mine map(s); and**
- (3) all owners of record, both public and private, of all tracts of land that are adjoining the mining permit boundary which lie directly across and is contiguous to any highway; creek, stream, river, or other watercourse; railroad track; or utility or other public right-of-way; if an adjoining tract is owned or leased by the applicant or is owned by the lessor of the mine tract, all owners of record of tracts adjoining these tracts must be notified (that are within 1,000 feet of the mining permit boundary) as indicated on the mine map(s). "Highway" means a road that has four lanes of travel or less and is not designated as an Interstate Highway.**

The only exception to the above method of giving notice is if another means of notice is approved in advance by the Director, Division of Land Resources.

A copy of a tax map (or other alternative acceptable to the Department) must be mailed with the completed "Notice" form (the proposed overall permit boundaries and the names and locations of all owners of record of lands adjoining said boundaries must be clearly denoted on the tax map).

The "Affidavit of Notification" attached to this application must be completed, notarized and submitted to the Department, with the remainder of the completed application form, before the application will be considered complete.

NOTE: THIS SECTION MUST BE COMPLETED FOR ALL APPLICATIONS FOR NEW MINING PERMITS AND ALL MODIFICATIONS OF A MINING PERMIT TO ADD LAND TO THE PERMITTED AREA, AS REQUIRED BY NCGS 74-50(b1).

SEE THE NEXT TWO PAGES FOR THE "NOTICE" FORM AND THE "AFFIDAVIT OF NOTIFICATION"



APPLICATION FOR A MINING PERMIT

G. LAND ENTRY AGREEMENT

We hereby grant to the Department or its appointed representatives the right of entry and travel upon our lands or operation during regular business hours for the purpose of making necessary field inspections or investigations as may be reasonably required in the administration of the Mining Act of 1971.

We further grant to the Department or its appointed representatives the right to make whatever entries on the land as may be reasonably necessary and to take whatever actions as may be reasonably necessary in order to carry out reclamation which the operator has failed to complete in the event a bond forfeiture is ordered pursuant to G.S. 74-59.

LANDOWNER:

Signature: David F. Lee

Print Name: David F. Lee

Address: PO Box 190

Knightsdale, North Carolina 27545

Telephone: (919) 266-1100

APPLICANT:

Signature: * David F. Lee

Print Name: David F. Lee

Title: Geologist/Environmental Supervisor

Company: Wake Stone Corporation

Mine Name: Triangle Quarry

*Signature must be the same as the individual who signed Page 1 of this application.

Six (6) copies of the completed application, six (6) copies of all location maps, mine maps and reclamation maps, and the appropriate processing fee (see next page for fee schedule) in the form a check or money order payable to the North Carolina Department of Environment and Natural Resources must be sent to the Land Quality Section Central Office at the address listed on the front cover of this application form.

Inquiries regarding the status of the review of this application should be directed to the Mining Program staff at (919) 733-4574.



Wake Stone Corporation

Quarry Phone Numbers:
919/266-9266—Knightdale
919/677-0050—Triangle
919/775-7349—Moncure
252/985-4411—Nash County

Locations:
U.S. 64 East, Raleigh, N.C.
I-40 at Harrison Ave., Cary, N.C.
U.S. 1 at Deep River, Moncure, N.C.
SR 1527 at I-95, Gold Rock, N.C.

Business Office Address:
P.O. Box 190
Knightdale, N.C. 27545
919/266-1100
Fax 919/266-1149

March 12, 2001

Judy-

Attached are two additional copies of the Triangle Quarry Mining Permit Renewal Application submitted earlier today. Please call me at 266-1100 if you need additional copies or have any questions.

Thanks-





1

LAND QUALITY SECTION REGIONAL OFFICE
MINING APPLICATION REVIEW CHECKLIST - 2/22/2001

APPLICATION/PERMIT NO.: 92-10 ACTION: New Modification Renewal Transfer Release

APPLICANT NAME: Wake Stone MINE NAME: Triangale Quarry COUNTY: Wake

Administrative Issues:

- A. Is the site currently under NOV? Yes No Explain: _____
B. Is the site under CAMA jurisdiction? Yes No Explain: _____

Field Issues:

- A. Are potential wetlands and watercourses properly indicated on the Mine Map? Yes No Explain: _____
B. Are the proposed buffer zones adequate? Yes No Explain: _____
C. Do all occupied dwellings within 300 feet of the mine excavation appear to be indicated? Yes No Explain: _____
D. Do all water supply wells within 500 feet of the mine excavation appear to be indicated? Yes No Explain: _____
E. Is visual screening needed? Yes No Explain: _____
F. Are the proposed erosion and sedimentation control measures properly located to prevent offsite sedimentation? Yes No Explain: _____
G. Is the proposed revegetation/reclamation plan acceptable? Yes No Explain: _____

* Date inspected: _____

Erosion and Sedimentation Control Plan Review:

It is the responsibility of the Regional Office staff to verify the adequacy of the E&S measures. Please provide any concerns or comments: _____

Other Comments:

Who was the application routed to and when?:

Division of Air Quality: _____ Date: _____
Division of Water Quality (Water Quality Section only): _____ Date: _____
Other: _____ Date: _____

Inspector/Reviewer's Name: _____ Date: _____
Regional Engineer's Name: _____ Date: _____



MINING PERMIT APPLICATION REVIEW FORM
for
DIVISION OF AIR QUALITY

Project: Wake Stone - Triangle Q County: Wake

****Due Date for Comments Back to Land Quality Section: _____****

Will the operation, as proposed, violate standards of air quality? _____

Comments: _____

YES

NO

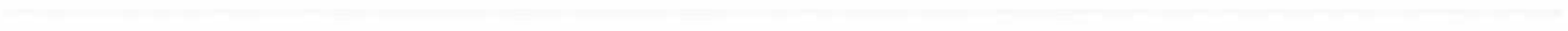
Air permit required _____

Air permit existing _____ (Permit # _____) _____

Other Comments: _____

Reviewed by: _____ Date: _____

Print Name: _____



MINING PERMIT APPLICATION REVIEW FORM

for
DIVISION OF WATER QUALITY

Project: Wake Stone - Triangle Q County: Wake

****Due Date for Comments Back to Land Quality Section: _____****

Will the operation, as proposed, violate standards of water quality? _____

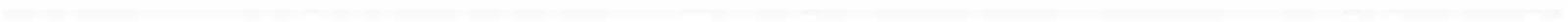
Comments: _____

Watershed/Stream Name & Classification: _____

	YES	NO
NPDES permit required	___	___
NPDES permit existing	___ (Permit # _____)	___
Nondischarge permit required	___	___
Nondischarge permit existing	___ (Permit # _____)	___
Wetlands disturbed	___	___
401 Wetland Cert. required	___	___
401 Wetland Cert. existing	___ (Permit # _____)	___

Reviewed by: _____ Date: _____

Print Name: _____



North Carolina
Department of Environment and Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Charles H. Gardner, P.G., P.E.
Director and State Geologist



Division of Land Resources

March 13, 2001

MEMORANDUM

TO: Mr. Nat Wilson
Hydrogeology Group
Division of Water Resources

FROM: Susan B. Edwards *SE*
Mining Program Secretary
Land Quality Section

SUBJECT: Mining Permit Renewal Request for Wake Stone Corporation
Triangle Quarry - Permit No. 92-10
Wake County

RECEIVED

MAR 12 2001

DIVISION OF
WATER RESOURCES

Please find attached for your review a copy of the mining permit renewal request for the above referenced project.

Please review this information and advise as to the probability of this operation having an unduly adverse effect on potable groundwater supplies (G.S. 74-51 (2)) or groundwater quality (G.S. 74-51(3)). Please respond by April 6, 2001 so that we may complete our review of this request within our statutory time limits.

Any comments your agency can provide regarding potential effects on potable groundwater supplies and groundwater quality will be appreciated. We would like to have any recommendations you may provide for permit conditions, for reasonable protection of groundwater quantity or quality.

If your staff wishes to perform a site inspection, it is recommended that they contact the person submitting this request to set up a convenient date and time. Also, please send a copy of your comments to the person noted in the application.

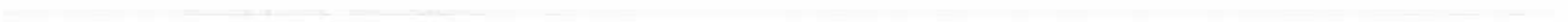
PLEASE RETURN ALL APPLICATION MATERIALS AND MAPS WITH YOUR REVIEW COMMENTS TO THIS OFFICE.

Your continued cooperation is greatly appreciated. Please contact Ms. Judy Wehner at (919) 733-4574 if you have any questions.

/SBE

Attachments

cc: Mr. John Holley




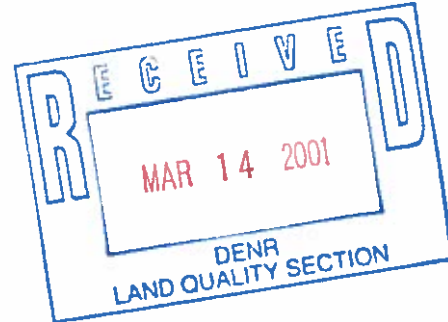


March 14, 2001

MEMORANDUM

TO: Ms. Susan B. Edwards
Mining Program Secretary
Land Quality Section

FROM: Blake Rouse 
Water Allocation Section
Division of Water Resources



SUBJECT: Comments on the Mining Permit Renewal Request for:
Wake Stone Corporation
Triangle Quarry - Permit No. 92-10
Wake County

Please find attached a copy of the mining permit renewal request for the above referenced project.

The Triangle Quarry located in Wake County should not have an unduly adverse effect on ground water supplies.

Any water withdrawal will be subject to North Carolina General Statute 143-215.22H; *Registration of Water Withdrawals and Transfers Required*. Any person who withdraws in one day 100,000 gallons (70 gpm) or more of surface water or ground water in North Carolina is required to register the withdrawal with the Division of Water Resources. A Capacity Use Area #1 permit must be obtained from the Division of Water Resources if the withdrawal exceeds 100,000 gallons per day and occurs in Beaufort, Carteret, Craven, Hyde, Martin, Pamlico, Tyrrell, or Washington County.

If you have further questions please contact the Division of Water Resources at (919) 733-4064 or send correspondence to 1611 Mail Service Center, Raleigh NC 27699-1611.

1611 Mail Service Center, Raleigh, North Carolina, 27699-1611

Phone: 919 - 733-4064 \ FAX: 919 - 733-3558 \ Internet: www.ncwater.org

1950
M. H. H.
LAND OF INDEPENDENCE
PROVINCE SOCIAL

MINING CHECKLIST FOR ROUTING

Applicant's Name: WAKE Stone Corp Project Name: Tranale Quarry

Applic./Permit No.: 9210 County: WAKE Date Received: 3/12/01

Reviewer: J. Weber River Basin Name: Newse

- New Renewal Modification (inside permit boundaries)
 Modification (outside permit boundaries) Transfer Release
 Partial Release Additional Information Fee Needed: \$ _____
 Fee Received: \$ 500⁰⁰

Please route entire application package to:

- Rule 1614 Regional Office (2 complete copies; attach the "LQS Regional Office Mining Application Review Checklist" to one copy and attach both the DWQ and DAQ "Mining Application Review Form" to the other copy; send both copies to the Regional Engineer)

Date: Routed B-13-2001 Rec'd _____

Division of Water Resources Date: Routed SE Rec'd _____

NC Wildlife Resources Commission Date: Routed ↓ Rec'd _____

US Fish & Wildlife Service Date: Routed _____ Rec'd _____

(Only new applications and modification requests that add land to the permit)

Please route first 3 pages of the application and any location maps to:

Division of Parks & Recreation Date: Routed _____ Rec'd _____

NC Geological Survey Section Date: Routed _____ Rec'd _____

(Only new applications and modification requests that add land to the permit)

Division of Archives & History Date: Routed _____ Rec'd _____

(Only new applications)

Other: _____ Date: Routed _____ Rec'd _____

**Suspense Date for Comments: 4/6/01 (no later than 25 days from receipt)

Please note the following:

Show your review + file.
Thanks
[Signature]

35. 8364
- 78. 7664



North Carolina
Department of Environment and Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Charles H. Gardner, P.G., P.E.
Director and State Geologist



Division of Land Resources

March 13, 2001

MEMORANDUM

TO: Ms. Danielle Pender
Habitat Conservation Program Coordinator
Wildlife Resources Commission

FROM: Susan B. Edwards *SBE*
Mining Program Secretary
Land Quality Section

SUBJECT: Mining Permit Renewal Request for Wake Stone Corporation
Triangle Quarry - Permit No. 92-10
Wake County

Please find attached for your review a copy of the mining permit renewal request for the above referenced project.

Please review this information and advise as to the probability of this operation having unduly adverse effect on wildlife and freshwater fisheries (G.S. 74-51 (2)). Please respond by **April 6, 2001** so that we may complete our review of this request within our statutory time limits.

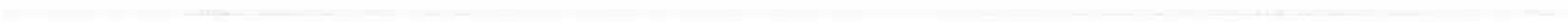
As is the case in our review of all mining permit applications, renewals and modifications, this office will carefully review all proposed erosion and sediment control measures to ensure that they are sufficient to restrain erosion and off-site sedimentation. However, any comments your agency can provide regarding effects on wildlife and freshwater fisheries would be greatly appreciated. If your staff wishes to perform a site inspection, it is recommended that they contact the person submitting this request to set up a convenient date and time. Also, please send a copy of your comments to the person noted in the application.
RETURN ALL APPLICATION MATERIALS AND MAPS WITH YOUR REVIEW COMMENTS TO THIS OFFICE.

Your continued cooperation in the review of these type requests is greatly appreciated. Please contact Ms. Judy Wehner at (919) 733-4574 if you have any questions.

/SBE

Attachments

cc: Mr. John Holley



North Carolina
Department of Environment and Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Charles H. Gardner, P.G., P.E.
Director and State Geologist




Division of Land Resources

March 13, 2001

MEMORANDUM

TO: Mr. Nat Wilson
Hydrogeology Group
Division of Water Resources

FROM: Susan B. Edwards 
Mining Program Secretary
Land Quality Section

SUBJECT: Mining Permit Renewal Request for Wake Stone Corporation
Triangle Quarry - Permit No. 92-10
Wake County

Please find attached for your review a copy of the mining permit renewal request for the above referenced project.

Please review this information and advise as to the probability of this operation having an unduly adverse effect on potable groundwater supplies (G.S. 74-51 (2)) or groundwater quality (G.S. 74-51(3)). Please respond by April 6, 2001 so that we may complete our review of this request within our statutory time limits.

Any comments your agency can provide regarding potential effects on potable groundwater supplies and groundwater quality will be appreciated. We would like to have any recommendations you may provide for permit conditions, for reasonable protection of groundwater quantity or quality.

If your staff wishes to perform a site inspection, it is recommended that they contact the person submitting this request to set up a convenient date and time. Also, please send a copy of your comments to the person noted in the application.

PLEASE RETURN ALL APPLICATION MATERIALS AND MAPS WITH YOUR REVIEW COMMENTS TO THIS OFFICE.

Your continued cooperation is greatly appreciated. Please contact Ms. Judy Wehner at (919) 733-4574 if you have any questions.

/SBE

Attachments

cc: Mr. John Holley



FAX COVER

Falls Lake Office

NC Wildlife Resources Commission
Habitat Conservation Program
1142 I-85 Service Road
Creedmoor, NC 27522

Date 6 April 2001

Number of pages including cover sheet 3

To:

Susan Edwards
DLR

Phone _____

Fax Phone _____

CC: _____

From:

Danielle Kender
WWR

Phone 919-528-9886

Fax Phone 919-528-9839

REMARKS:

- Urgent
- For your review
- Reply ASAP
- Please comment

92-10

Triangle Quarry

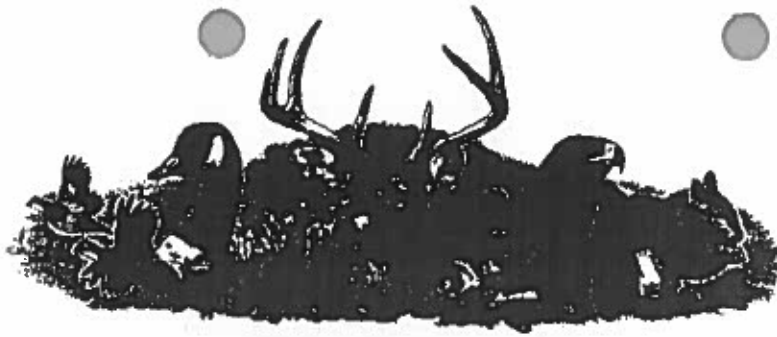


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☒ North Carolina Wildlife Resources Commission ☒

Charles R. Fullwood, Executive Director

MEMORANDUM

TO: Susan B. Edwards, Mining Program Secretary
Land Quality Section

FROM: Danielle R. Pender
Danielle R. Pender
Piedmont Region Coordinator
Habitat Conservation Program

DATE: 6 April 2001

SUBJECT: Mining Permit Renewal Request for Wake Stone Corporation, Triangle Quarry -
Permit No. 92-10, Wake County, North Carolina

Biologists with the North Carolina Wildlife Resources Commission have reviewed the subject permit renewal. Our comments are provided in accordance with provisions of the Mining Act of 1971 (as amended, 1982)(G.S. 74-76 through 74-68 15 NCAC 5).

Wake Stone Corporation is requesting a renewal of their permit for mining granitic-type stone bedrock, saprolite, and overburden on a 223-acre site located adjacent to William B. Umstead State Park. The site is drained by Crabtree Creek, which is a major tributary of the Neuse River. Several listed species have been found to exist in Crabtree Creek including the federal species of concern and state threatened, Atlantic pigtoe (*Fusconaia masoni*), the federal species of concern and significantly rare, pinewoods shiner (*Lythrurus matutinus*), the state threatened, squawfoot (*Sirophitus undulatus*) and triangle floater (*Alasmidonta undulata*), and the significantly rare, notched rainbow (*Villosa constricta*); therefore, protecting water quality is essential.

The application indicates that there are no requested modifications to the existing permit. We are pleased with the existence of a 100-foot undisturbed vegetated buffer for the west side along Crabtree Creek, a 250-foot unexcavated buffer for the north side along Crabtree Creek and



Page 2

6 April 2001
Wake Stone Corporation
Permit No. 92-10

the park, and a 100-foot unexcavated buffer containing vegetated earthen berm for the east side along the park. Although we concur with the proposed renewal, we recommend that the buffers not only be undisturbed, but also be forested buffers. We encourage the applicant to maintain or establish a minimum 100-foot undisturbed, forested buffer along all streams, watercourses, and wetlands. This 100-foot buffer will protect water quality and provide an adequate travel corridor for wildlife species. In addition, water discharges from the project site should be proportional to the size of the receiving stream, and all discharges should comply with NPDES permit requirements. In particular, turbidity of the discharge should be maintained at or below the permit requirement. High water discharge rates and turbidity can negatively impact aquatic and fisheries resources within and downstream of the project area. Excessive silt and sediment loads can have numerous detrimental effects on aquatic resources including destruction of spawning habitat, suffocation of eggs, and clogging of gills of aquatic species. Implementation of these conditions should minimize impacts to aquatic and fisheries resources downstream of the project site.

Very little information was provided in the reclamation plan. We encourage the applicant to consider using seed mixtures that are beneficial to wildlife in their reclamation plan, such as warm season grasses. An exact seeding mixture would need to take into account soil types, moisture, pH, and degree of slope of areas to be stabilized. Fertilization and lime should be applied as needed based on soil testing. Planting a mixture of loblolly pine and high quality hardwoods (e.g., oaks, hickories, black gum, and dogwood) would enhance the area for wildlife. Also, other mixtures that are not fescue based could provide adequate stabilization. We refer the applicant to *Surface Mine Reclamation As Fish and Wildlife Habitat*, North Carolina Wildlife Resources Commission, 1997, and Mike Scruggs, District Wildlife Biologist at (252) 904-3537 for additional information and ideas on reclamation for wildlife.

Thank you for the opportunity to review and comment on this renewal. If you need additional information, please contact our office at (919) 528-9886.

cc: David Lee, Wake Stone Corporation
Garland Pardue, Supervisor, USFWS

E-mail: Stephen Hall, Zoologist, Natural Heritage Program



Subject: Wake Stone 92-10

Date: Thu, 12 Apr 2001 10:10:10 -0400

From: judy wehner <Judy.Wehner@ncmail.net>

Organization: DENR/DLR

To: Jim Simons <Jim.Simons@ncmail.net>, Mell Nevils <Mell.Nevils@ncmail.net>

CC: Tracy Davis <Tracy.Davis@ncmail.net>

I have not received comments from John Holley for this renewal. They were due April 6, 2001. I will proceed with my review.



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160	170	180	190	200
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260	270	280	290	300
310	320	330	340	350
360	370	380	390	400
410	420	430	440	450
460	470	480	490	500
510	520	530	540	550
560	570	580	590	600
610	620	630	640	650
660	670	680	690	700
710	720	730	740	750
760	770	780	790	800
810	820	830	840	850
860	870	880	890	900
910	920	930	940	950
960	970	980	990	1000

Subject: Triangle Quarry (92-10)

Date: Tue, 17 Apr 2001 13:31:11 -0400

From: John Holley <john.holley@ncmail.net>

To: Judy Wehner <Judy.Wehner@ncmail.net>

I have reviewed the renewal application and have discussed the site with DWQ and DAQ staff at the RRO. The application appears complete and acceptable, and no additional DWQ/DAQ issues appear to need follow-up. Approval is recommended under the conditions of the current permit. If there are any questions, please advise.

On future applications, particularly where DWQ/DAQ comments are requested, please provide copies of the new comment forms to facilitate our response. Thanks



North Carolina
Department of Environment and Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Charles H. Gardner, P.G., P.E.
Director and State Geologist



Division of Land Resources

April 23, 2001

Mr. David F. Lee
Wake Stone Corporation
P.O. Box 190
Knightdale, North Carolina 27545

RE: Permit No. 92-10
Triangle Quarry
Wake County
Neuse River Basin

Dear Mr. Lee:

Your application for renewal of the above referenced mining permit has been approved. A copy of the renewed permit is enclosed.

The conditions in the permit renewal were based primarily upon the initial application. Modifications were made as indicated by the renewal request and as required to insure compliance with The Mining Act of 1971. The new expiration date is April 20, 2011.

As a reminder, your permitted acreage at this site is 223 acres and the amount of land you are approved to disturb is 153 acres as indicated on the Site Plan Map dated March 1, 2001.

Please review the renewed permit and advise this office at (919) 733-4574 should you have any questions concerning this matter.

Sincerely,

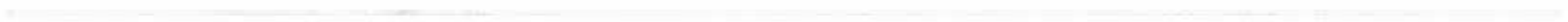
Tracy E. Davis, P.E., C.P.M.
State Mining Specialist
Land Quality Section

TED/jw

Enclosures

cc: Mr. John Holley, P.E.
Ms. Monika Sharma-WRC, w/enclosures
Mr. Bradley Bennett-DWQ, w/enclosures
Mr. William Geringer-DOL, Mine and Quarry Bureau,
w/o enclosures

Land Quality Section (919) 733-4574 Fax (919) 733-2876 Geological Survey Section (919) 733-2423 Fax (919) 733-0900
1612 Mail Service Center, Raleigh, North Carolina 27699-1612
Division of Land Resources (919) 733-3833 Fax: (919) 715-8801



**DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF LAND RESOURCES
LAND QUALITY SECTION**

P E R M I T

for the operation of a mining activity

In accordance with the provisions of G.S. 74-46 through 68, "The Mining Act of 1971," Mining Permit Rule 15A NCAC 5 B, and other applicable laws, rules and regulations

Permission is hereby granted to:

Wake Stone Corporation

Triangle Quarry

Wake County - Permit No. 92-10

for the operation of a

Crushed Stone Quarry

which shall provide that the usefulness, productivity and scenic values of all lands and waters affected by this mining operation will receive the greatest practical degree of protection and restoration.

MINING PERMIT EXPIRATION DATE: April 20, 2011



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In accordance with the application for this mining permit, which is hereby approved by the Department of Environment and Natural Resources hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other security on file with the Department, and may survive the expiration, revocation or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation or suspension by the Department. Alternatively and in addition to the above, the Department may institute other enforcement procedures authorized by law.

Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, N.C.G.S. 74-49.

Modifications

April 7, 1991: This permit has been modified to include three pit expansions, the construction of a pit perimeter road, and the construction of the visual barrier berm along the 250 foot permanent buffer zone as indicated on the revised Site Plan and supplemental information dated February 14, 1991.

February 5, 1992: This permit has been modified to include and require compliance with the January 20, 1992 blast and rock slide investigative report prepared by Wake Stone Corporation, in its entirety.

October 11, 1996: This permit has been modified to allow the shipping of material after 1:00 PM on Saturdays until such time as the Umstead State Park reopens or the repair of the Raleigh Outer Loop Project near the RDU Airport is completed, whichever comes first.

Expiration Date

This permit shall be effective from the date of its issuance until April 20, 2011.



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Conditions

This Permit shall be subject to the provisions of the Mining Act, N.C.G.S. 74-46, et. seq., and to the following conditions and limitations:

OPERATING CONDITIONS:

1. Wastewater and Quarry Dewatering
 - A. Any wastewater processing or mine dewatering shall be in accordance with the permitting requirements and rules promulgated by the N.C. Environmental Management Commission.
 - B. Any storm water runoff from the affected areas at the site shall be in accordance with any applicable permit requirements and regulations promulgated by the Environmental Protection Agency and enforced by the N.C. Environmental Management Commission. It shall be the permittee's responsibility to contact the Storm water Section, Division of Water Quality, to secure any necessary storm water permits or other approval documents.
2. Air Quality and Dust Control
 - A. Any mining related process producing air contaminant emissions including fugitive dust shall be subject to the requirements and rules promulgated by the N.C. Environmental Management Commission and enforced by the Division of Air Quality.
 - B. The provisions of Air Quality Permit No. 4386 shall be followed.
 - C. The permanent access (plant entrance) road shall be paved from the scale house to SR 1790. During quarry operation, water trucks or other means that may be necessary shall be utilized to prevent dust from leaving the permitted area.
 - D. The permittee shall cooperate with DOT in paving SR 1790 from the entrance to the quarry to the intersection of SR 1790 and SR 1654.
 - E. Dust suppression systems shall be used throughout the plant to control dust.
 - F. Drill holes dust shall be controlled by wetting or other means.
 - G. Dust control at the crushers and screens shall be maintained by the use of water sprays.
 - H. A water spray shall be provided for highway haul trucks.
 - I. Washed stone shall be stockpiled within the part of the designated plant area which is closest to the park.
3. Buffer Zones
 - A. Any mining activity affecting waters of the State, waters of the U. S., or wetlands shall be in accordance with the requirements and regulations promulgated and enforced by the N. C. Environmental Management Commission.



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- B. Sufficient buffer shall be maintained between any affected land and any adjoining waterway or wetland to prevent sedimentation of that waterway or wetland from erosion of the affected land and to preserve the integrity of the natural watercourse or wetland.
- C. The dotted line labeled as buffer along the northern permit boundary and along the eastern boundary is the permanent buffer as designated by the Mining Commission (see Site Plan dated March 10, 1981).
- D. An undisturbed buffer of existing natural vegetation shall be maintained between the mining disturbance and both Crabtree Creek and Umstead Park property as indicated by the "permanent buffer" shown on the site plans dated March 10, 1981 and February 14, 1991 with the exception of the installation of the two vegetated earthen berms as specified by the revised Site Plan dated February 14, 1991.
- E. An undisturbed buffer zone of existing natural vegetation shall also be maintained between the top of the bank of Crabtree Creek and any mining disturbance within the 10 year permit area. The buffer zone shall be of sufficient width to prevent offsite sedimentation and to preserve the integrity of the natural watercourse. In any event, the buffer shall meet the U.S. Corps of Engineers requirements for Crabtree Creek Watershed.
- F. A minimum buffer zone of 100 feet shall be maintained between Crabtree Creek and the new pit expansions along the west side of the mine site as delineated on the revised Site Plan and supplemental information dated February 14, 1991 and approved in the mining permit on April 1, 1991.
- G. A minimum buffer zone of 50 feet shall be maintained between Crabtree Creek and the outer edge of the perimeter haul road that runs along the western edge of the existing pit denoted as "Pit Expansion Initiated During 1989".
- H. A minimum buffer zone of 250 feet shall be maintained between any mining activity and Crabtree Creek along the north side of the mine site.
- I. A minimum buffer zone of 100 feet shall be maintained between any mining activity and both the Umstead Park property and adjoining property along the east and south sides of the mine site, respectively.
- J. The only exceptions to the above referenced undisturbed buffers of natural vegetation are as follows:
 - 1. The construction of berms as approved by the Department for visual and noise screening.
 - 2. The installation of drainage and erosion and sedimentation control measures as approved by the Department to protect Crabtree Creek.
 - 3. The construction of a water supply dam as shown on drawings submitted in a permit modification request dated September 30, 1986 approved by the Department.



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- K. All buffer zones shown on the Site Plan Map dated March 1, 2001 shall be maintained to protect adjoining property. These buffer zones, with the exception of the installation of required sediment control measures and approved earthen berms, shall remain undisturbed.

4. Erosion and Sediment Control

- A. Adequate mechanical barriers including, but not limited to diversions, earthen dikes, silt check dams, silt retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance and maintained to prevent sediment from discharging onto adjacent surface areas or into any lake, wetland or natural watercourse in proximity to the affected land.
- B. The existing lakes shall be used to trap sediment from initial mining disturbances. The spillways of the existing lakes shall be further stabilized as necessary to prevent erosion of the spillway from runoff from the affected lands. The embankments of the existing lakes shall be improved if necessary to insure the stability of the embankments.
- C. The three pit expansions, the construction of a pit perimeter road, and the construction of the visual barrier berm along the 250 foot permanent buffer zone shall be conducted according to the revised Site Plan and supplemental information dated February 14, 1991 with the following stipulations: (1) that Sediment Basin "C" be constructed as an arched stone filter, (2) as Culvert No. 3 requires a headwater depth of at least five feet, the minimum elevation of the top of the road fill shall be set at elevation of the top of the road fill shall be set at elevation 292, (3) temporary diversions TD-1A, TD-1B, and TD-7B shall be provided with a temporary liner (straw with net recommended as a minimum), (4) the minimum stone thickness of Class B stone for all rip-rap lined ditches shall be 22 inches (Class A stone could be used for all rip-rap lined ditches in lieu of Class B stone due to the low velocities and small discharges), and (5) all overburden cut slopes shall be graded to a 1 ½ to 1 slope or flatter.
- D. All mining activities, including the installation and maintenance of all erosion and sedimentation control measures, shall be conducted as indicated on the Site Plan Map dated March 1, 2001.
- E. An erosion and sediment control plan(s) shall be submitted to the Department for approval prior to any land disturbing activities not indicated on the revised erosion control plan or mine maps submitted with the approved application for a mining permit and any approved revisions to it. Such areas include, but are not limited to, expansion outside of the approved pit area, creek crossings, or expansion of overburden or waste disposal areas.

5. Groundwater Protection

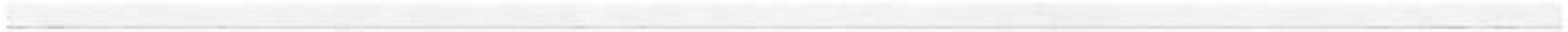
Groundwater monitoring wells shall be installed and monitored as deemed appropriate by the Department.

6. Noise Abatement

All reasonable precautions shall be taken to minimize the impacts of operational noise upon Umstead Park. Such measures shall include, but not be limited to, the following:



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- A. Noise barriers between the park boundary and the crushers and screening towers to minimize noise levels at the park shall be provided from the onset of the operation. Noise barriers may be enclosures, walls, bins, structures, stockpiles, or natural terrain. In the event there is disagreement over the required noise control measure, the final design and placement of noise barriers shall be determined by qualified noise and engineering consultants mutually agreed upon by both parties.
- B. The plant shall be located at the lowest feasible elevation.
- C. The plant shall be designed so that the primary crusher can be relocated in the pit at the earliest possible date.
- D. The chutes used in processing shall be rubberized.
- E. Compressors with noise abatement enclosures (currently called whisperized compressors) shall be used with track drills to open the quarry. Once the quarry is opened, either hydraulic or down-in-the -hole drills shall be used to further reduce noise.
- F. Pit haul trucks shall be equipped to exhaust through the beds of the trucks to muffle engine noise.
- G. Conveyors rather than trucks shall be used for stockpiling material.
- H. The quarry and stone process operations shall be operated only on Monday through Friday and shall not be operated on the following recognized holidays: New Years Day, Easter Monday, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day. A reasonable amount of hauling of processed stone from the stockpile areas is permitted until 1:00 PM on Saturdays, but hauling shall not be done at any other time on weekends or on holidays without prior approval from the Department.

7. Processing Plant Location

- A. The processing and stockpiling facilities shall be located as indicated on the Site Plan Map dated March 1, 2001.
- B. The plant shall be located to place the processing and stockpiling facilities at the lowest possible elevation to reduce visibility and noise impact on Umstead State Park.
- C. The location of the pit shall be such that once the overburden is removed, the quarry excavating equipment (i.e., compressor and drill, shovels, and trucks) can be placed at an elevation lower than the surrounding natural ground in the initial phases of quarrying.



8. Graded Slopes and Fills

- A. The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control measure, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause off-site damage because of siltation, shall be planted or otherwise provided with groundcover, devices or structures sufficient to restrain such erosion.
- B. Overburden cut slopes along the perimeter of the quarry opening shall be graded to a minimum 1 ½ horizontal to 1 vertical or flatter and shall be stabilized within 60 days of completion. Furthermore, a minimum ten (10) foot wide horizontal safety bench shall be provided at the top of the rock and at the toe of any overburden slope.

9. Surface Drainage

The affected land shall be graded so as to prevent collection of pools of water that are, or likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.

10. Blasting

The operator shall monitor each blast with a seismograph located at a distance no farther than the closest off site regularly occupied structure not owned or leased by the operator. A seismographic record including peak particle velocity, air overpressure, and vibration frequency levels shall be kept for each blast (except as provided under Sections B. and D. of this permit). The following blasting conditions shall be observed by the mine operator to prevent hazard to persons and adjacent property from surface blasting:

A. Ground Vibration With Monitoring:

In all blasting operations, the maximum peak particle velocity of any component of ground motion shall not exceed Figure 1 (below) at the immediate location of any regularly occupied building outside of the permitted area such as a dwelling house, church, school, or public, commercial or institutional building.



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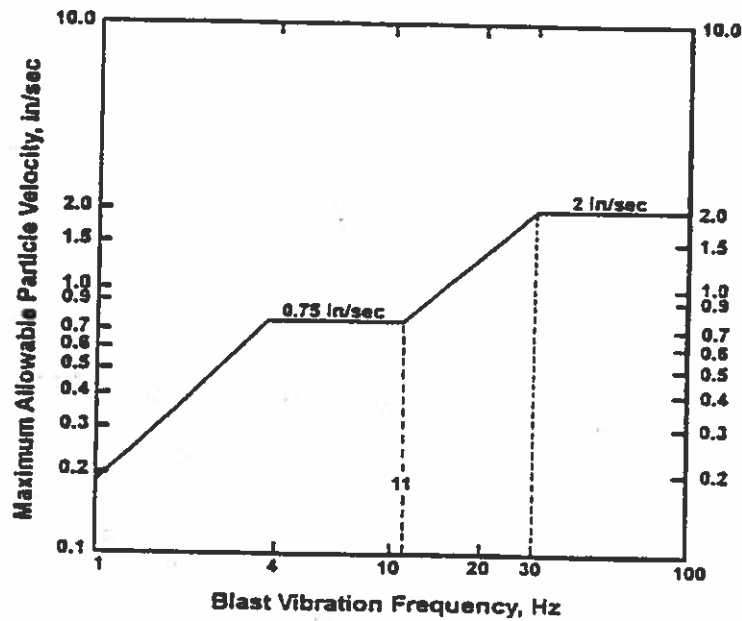


Figure 1 Alternative blasting level criteria
(Source modified from figure B-1. Bureau of Mines R18507)

B. Ground Vibration Without Monitoring:

In the event of seismograph malfunction or other condition which prevents monitoring, blasting shall be conducted in accordance with the following formulas:

$$W = (D/D_s)^2 \quad D_s = \frac{D}{W^{1/2}}$$

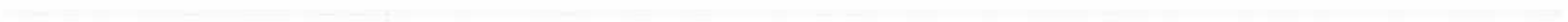
$$V = 160(D_s)^{-1.6}$$

- W = Maximum charge weight of explosives per delay period of 8.0 milliseconds or more (pounds).
D = Distance from the blast site to the nearest inhabited building not owned or leased by the mine operator (feet).
D_s = Scaled distance factor.
V = Peak Particle Velocity (inches per second).

The peak particle velocity of any component shall not exceed 1.0 inch per second, for the purposes of this Section.



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C. Airblast With Monitoring:

Airblast overpressure resulting from surface blasting shall not exceed 129 decibels linear (dBL) as measured at the immediate location of any regularly occupied building not owned or leased by the operator outside of the permitted area such as a dwelling house, church, school, or public, commercial or institutional building, unless an alternate level based on the sensitivity of the seismograph microphone as specified below is being used:

<u>Lower Frequency Limit of Measuring System, in Hz</u>	<u>Max Level, in dBL</u>
0.1 Hz or lower-flat response	134 peak
2.0 Hz or lower-flat response	133 peak
6.0 Hz or lower-flat response	129 peak

D. Airblast Without Monitoring:

In the event of seismograph malfunction or other condition which prevents monitoring, blasting shall be conducted in accordance with the following formulas:

$$U = 82 (D/W^{0.33})^{-1.2}$$

To convert U (psi) to P (dbl):

$$P = 20 \times \log (U/2.9 \times 10^{-9})$$

Confined Airblast/Overpressure (dbl)
for quarry situation:

$$A = P - 35$$

U	=	Unconfined air overpressure (pounds per square inch).
W	=	Maximum charge weight of explosives per delay period of 8.0 milliseconds or more (pounds).
D	=	Distance from the blast site to the nearest inhabited building not owned or leased by the mine operator (feet).
P	=	Unconfined air overpressure (decibels).
A	=	Airblast or air overpressure for typical quarry situations (decibels).

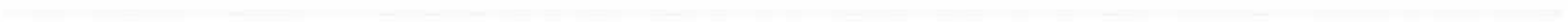
The airblast/overpressure shall not exceed 129 decibels, for the purposes of this Section.

E. Record Keeping:

The operator shall maintain records on each individual blast describing: the total number of holes; pattern of holes and delay of intervals; depth and size of holes; type and total pounds of explosives; maximum pounds per delay interval; amount of stemming and burden for each hole; blast location; distance from blast to closest offsite regularly occupied structure; and weather conditions at the time of the blast. Records shall be maintained at the permittee's mine office and copies shall be provided to the Department upon request.



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F. Excessive Ground Vibration/Airblast Reporting:

If ground vibration or airblast limits are exceeded, the operator will immediately report the event with causes and corrective actions to the Department. Use of explosives at the blast site that produced the excessive reading shall cease until corrective actions approved by the Department are taken. However, blasting may occur in other approved areas within the permitted boundary. Authorization to blast at the blast site may be granted at the time of the verbal reporting of the high ground vibration or high air blast reading if the circumstances justify verbal approval. Failure to report will constitute a permit violation.

G. Flyrock Prevention:

The operator shall take all reasonable precautions to ensure that flyrock is not thrown beyond areas where the access is temporarily or permanently guarded by the operator. Failure to take corrective measures to prevent flyrock and repeated instances of flyrock shall be considered a violation of the Mining Permit.

H. Flyrock Reporting:

Should flyrock occur beyond the permitted and guarded areas, the operator shall immediately report the incident to the Department. Further use of explosives on the mine site shall be suspended until the following actions have been taken:

1. A thorough investigation as to the cause(s) of the incident shall be conducted.
2. A report detailing the investigation shall be provided to the Department within 10 days of the incident. The report shall, at a minimum, document the cause(s) of the incident along with technical and management actions that will be taken to prevent further incidents. The report shall meet with the approval of the Department before blasting may resume at the mine site.

I. Studies:

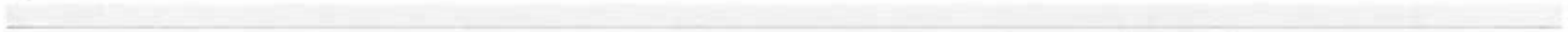
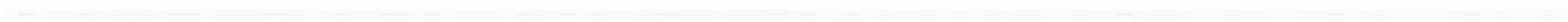
The operator shall provide to the Department a copy of the findings of any seismic studies conducted at the mine site in response to an exceedence of a level allowed by these blasting conditions. The operator shall make every reasonable effort to incorporate the studies' recommendations into the production blasting program.

J. Notice:

The operator shall, when requested by the Department, give 24 hour advance notice to the Land Quality Section Regional Office prior to any blast during a period for which notice is requested.



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- K. Regarding blasting activities conducted to lower the haul road along the western boundary of the "Pit Expansion Initiated During 1989" area and Crabtree Creek, all of the corrective actions/steps outlined in the blast and rock slide investigation report prepared by Wake Stone Corporation dated January 20, 1992 shall be followed. In addition, any areas disturbed as a result of the previous rock slide and its subsequent removal shall be restored to its natural, pre-disturbed state or an alternative acceptable to the Department.

11. High Wall Barrier

A physical barrier consisting of large boulders placed end-to-end or fencing shall be maintained at all times at the mining permit boundary to prevent inadvertent public access. In addition, a minimum 10 foot wide horizontal safety bench shall be provided at the junction between the top of rock and the toe of any overburden cut slope.

12. Visual Screening

- A. Existing vegetation shall be maintained between the mine and public thoroughfares to screen the operation from the public. Additional screening methods, such as constructing earthen berms, shall be employed as deemed appropriate by the Department.
- B. Vegetated earthen berms shall be located and constructed as shown on the Site Plan Map dated March 1, 2001. In addition to grasses, loblolly and/or Virginia pines or other acceptable evergreen species shall be planted as deemed appropriate by the Department to improve visual and noise buffering.
- C. The operation shall be situated to optimize natural screening of the operation from public view from Interstate 40 and the Umstead State Park property. The visual screening plan shall include maintaining undisturbed buffer areas of natural vegetation as shown on the site plan dated March 10, 1981. Additionally, a vegetated earthen berm shall be constructed east of the processing plant and stockpile area as shown on the revised site plans dated March 10, 1981 and February 14, 1991. Visual screening such as vegetated earthen berms and/or evergreen trees shall be placed as necessary to supplement natural screening.
- D. A vegetated earthen berm shall be constructed between the Wake Stone Corporation plant and the western boundary of Umstead State Park as shown on Wake Stone Corporation's site plan dated March 10, 1981 and February 14, 1991.
- E. Berm dimensions shall be no less than indicated on Wake Stone Corporation's site plans dated March 10, 1981 and February 14, 1991 and may be higher and longer than shown.



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- F. The side slopes of all berms shall be graded to a two horizontal to one vertical or flatter and revegetated on the sides and top with grasses and evergreen trees. The toe of the berm shall not encroach on the park property boundary and shall be at least 50 feet from the boundary. The alignment of the berm may vary from the approved site plan as is necessary to provide the 50 feet of undisturbed land between the park boundary and the toe of the berm and assuring an acceptable angle for the slope of the berm.
- G. Other berms may be required as mining progresses to reduce the noise and visual impact upon Umstead State Park.

13. Plan Modification

The operator shall notify the Department in writing of the desire to delete, modify or otherwise change any part of the mining, reclamation, or erosion/sediment control plan contained in the approved application for a mining permit and any approved revisions to it. Approval to implement such changes must be obtained from the Department prior to on-site implementation of the revisions.

14. Refuse Disposal

- A. No on-site disposal of refuse or other solid waste that is generated outside of the mining permit area shall be allowed within the boundaries of the mining permit area unless authorization to conduct said disposal has first been obtained from both the Division of Waste Management and the Land Quality Section, Department of Environment and Natural Resources. The method of disposal shall be consistent with the approved reclamation plan.
- B. Mining refuse as defined by G.S. 74-49 (14) of The Mining Act of 1971 generated on-site and directly associated with the mining activity may be disposed of in a designated refuse area. All other waste products must be disposed of in a disposal facility approved by the Division of Waste Management. No petroleum products, acids, solvents or their storage containers or any other material that may be considered hazardous shall be disposed of within the permitted area.
- C. For the purposes of this permit, the Division of Land Resources considers the following materials to be "mining refuse" (in addition to those specifically listed under G.S. 74-49 (14) of the N.C. Mining Act of 1971):
- 1) on-site generated land clearing debris
 - 2) conveyor belts
 - 3) wire cables
 - 4) v-belts
 - 5) steel reinforced air hoses
 - 6) drill steel
- D. If mining refuse is to be permanently disposed within the mining permit boundary, the following information must be provided to and approved by the Division of Land Resources prior to commencement of such disposal:
1. the approximate boundaries and size of the refuse disposal area;



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2. a list of refuse items to be disposed;
3. verification that a minimum of 4 feet of cover will be provided over the refuse;
4. verification that the refuse will be disposed at least 4 feet above the seasonally high water table; and
5. verification that a permanent vegetative groundcover will be established.

15. Annual Reclamation Report

An Annual Reclamation Report shall be submitted on a form supplied by the Department by February 1 of each year until reclamation is completed and approved.

16. Bonding

The security which was posted pursuant to N.C.G.S. 74-54 in the form of a \$500,000.00 blanket bond is sufficient to cover the operation as indicated in the approved application. This security must remain in force for this permit to be valid. The total affected land shall not exceed the bonded acreage.

17. Archaeological Resources

Authorized representatives of the Division of Archives and History shall be granted access to the site to determine the presence of significant archaeological resources.



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APPROVED RECLAMATION PLAN

The Mining Permit incorporates this Reclamation Plan, the performance of which is a condition on the continuing validity of that Mining Permit. Additionally, the Reclamation Plan is a separable obligation of the permittee, which continues beyond the terms of the Mining Permit.

The approved plan provides:

Minimum Standards As Provided By G.S. 74-53

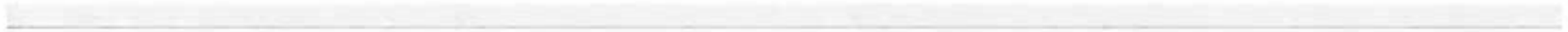
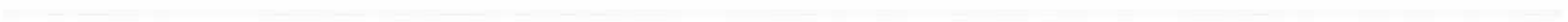
1. The final slopes in all excavations in soil, sand, gravel and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.
2. Provisions for safety to persons and to adjoining property must be provided in all excavations in rock.
3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.
4. No small pools of water shall be allowed to collect or remain on the mined area that are, or are likely to become noxious, odious or foul.
5. The revegetation plan shall conform to accepted and recommended agronomic and reforestation practices as established by the North Carolina Agricultural Experiment Station and the North Carolina Forest Service.
6. Permittee shall conduct reclamation activities pursuant to the Reclamation Plan herein incorporated. These activities shall be conducted according to the time schedule included in the plan, which shall to the extent feasible provide reclamation simultaneous with mining operations and in any event, provide reclamation at the earliest practicable time after completion or termination of mining on any segment of the permit area and shall be completed within two years after completion or termination of mining.

RECLAMATION CONDITIONS:

1. Provided further, and subject to the Reclamation Schedule, the planned reclamation shall be to allow the quarry excavation to fill with water, provide a permanent barricade (fence) along the top of any high wall, and grade and revegetate any areas in unconsolidated material.
2. The specifications for surface gradient restoration to a surface suitable for the planned future use are as follows:
 - A. All areas of unconsolidated material such as overburden or waste piles shall be graded to a 2 horizontal to 1 vertical or flatter slope and terraced as necessary to insure slope stability.
 - B. Any settling ponds and sediment control basins shall be backfilled, graded, and stabilized or cleaned out and made into acceptable lake areas.



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- C. The processing, stockpile, and other disturbed areas neighboring the mine excavation shall be leveled and smoothed.
- D. Compacted surfaces shall be disced, subsoiled or otherwise prepared before revegetation.
- E. No contaminants shall be permanently disposed of at the mine site. On-site disposal of waste shall be in accordance with Operating Conditions Nos. 12.A. through D.
- F. The affected land shall be graded to prevent the collection of noxious or foul water.
- G. Any diverted or re-established drainage channels shall be restored to a stable condition.

3. Revegetation Plan:

Disturbed areas in unconsolidated material shall be permanently revegetated according to the following provisions:

Site Preparation: The land surfaces shall be graded and/or shaped as necessary to create grades applicable to the subsequent use of the site, but in no case will any slope greater than 26 degrees in unconsolidated material be left. Loose rock, woody material, and other obstructions that would interfere with the establishment of vegetation planned for the site shall be removed and either buried or properly disposed of off-site in accordance with Operating Conditions 12.A. through D. above. Surface runoff shall be controlled by terraces or diversions to allow discharge through protected outlets.

Lime and Fertilizer: Lime and fertilizer shall be applied in accordance with soil test results or at a rate of 2,000 lbs./acre of lime and 1,000 lbs./acre of 10-20-20 fertilizer.

Seedbed Preparation: Lime and fertilizer shall be mixed with the soil to a depth of three to four inches where conventional equipment can be used. On slopes steeper than about 2:1, soils shall be grooved or scarified along the contour to provide for retention of seeds and nutrients on the slope until germination and growth is started. On steep slopes not accessible to seeding equipment, seed, nutrients and mulch shall be applied by hand.

Revegetation: Typical seed mixtures to be utilized include fescue-rye, fescue-rye-lespedeza, and fescue-lespedeza, where the lespedeza used may be Korean or Kobe, or Sericea. All rye species to be utilized shall be ryegrain rather than ryegrass. In fall or spring plantings, seeding mixtures shall utilize 100 lbs. Fescue and 50 lbs. Rye per acre to be planted. Late spring plantings in certain areas may contain up to 40 lbs. Kobe/Korean per acre where desirable to supplement natural deer browse. Sericea lespedeza shall be utilized at a rate of 20 to 40 lbs. per acre in combination with Fescue when planting excessively droughty soils or steep slopes. When using lespedeza species in fall plantings, non-scarified seed shall be utilized. Scarified seed shall be utilized in spring plantings. Newly seeded areas shall be mulched with unchopped small grain straw applied at a rate of 1.5 to 2 tons per acre, or until approximately 75% of the soil is hidden.



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Loblolly pine (or other acceptable evergreen species) and red cedar seedlings shall be planted at selected sites to provide visual screens and revegetation. Evergreen seedling plantings shall be done on a staggered 4 feet by 4 feet pattern.

Maintenance: Plant placement and other maintenance that may be required to establish vegetative cover appropriate to the reclamation plan for this site shall be carried out until vegetation is properly established.

In addition to the above requirements, the permittee shall consult with a professional wildlife biologist with the N.C. Wildlife Resources Commission to enhance post-project wildlife habitat at the site.

4. Reclamation Plan:

Reclamation shall be conducted simultaneously with mining to the extent feasible. In any event, reclamation shall be initiated as soon as feasible after completion or termination of mining of any mine segment under permit. Final reclamation, including revegetation, shall be completed within two years of completion or termination of mining.

5. Donation to State

This provision is pursuant to Wake Stone Corporation's offer to donate the quarry site to the State as part of its reclamation plan.

The term "quarry site" shall include the entire pit as it exists after quarrying has been completed, a strip extending at least 50 feet back from the top of the slope of the pit on all sides, and a reasonable area to connect the pit and surrounding strip to the Park, constituting a total area of at least 75 acres.

During the option period, Wake Stone Corporation shall have the right to encumber all of its remaining property from time to time by mortgage, deed of trust or other security agreement then in common use for the purpose of securing one or more bona fide obligations of Wake Stone Corporation, such as the payment of money or the providing of any goods or services. The option to the State shall be subordinate to each such encumbrance in the same manner and to the same extent as if such option has been recorded after the restoration of each such encumbrance.

The right of the State to exercise its option shall be subject to:

- A. Wake Stone Corporation not being prohibited by the U.S. Government, State of North Carolina, Wake County, any municipality having jurisdiction, or by any other court from removing from Wake Stone Corporation's property all quarryable stone which is outside the buffer zones referred to in Operating Condition No. 3 of this permit. The requirements by the State that Wake Stone Corporation comply with laws and rules and regulations generally applicable to stone quarrying shall not be deemed a prohibition of quarrying for the purpose of the option agreement.
- B. The operation of a quarry on Wake Stone Corporation's property for a minimum period of five years.



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The conveyance of the quarry site, if approved by the State, shall be by deed containing the usual covenants of warranty and conveying the quarry site free and clear of all encumbrances except those existing at the time of Wake Stone Corporation's purchase, ad valorem taxes at the time of conveyance (which shall be prorated), and such drainage and utility easements as shall have been installed in connection with the development of the property.

The option may include such other terms as are mutually acceptable to the State and Wake Stone Corporation.

The method by which the quarry site may be donated to the State is as follows: Upon acquisition of the land by Wake Stone Corporation (by the exercise of its options to purchase), Wake Stone Corporation will grant to the State an option which, if exercised by the State, will require that Wake Stone Corporation convey a fee simple title to the quarry site to the State. The State shall have no obligations to exercise its option to accept a conveyance of the quarry site.

The terms and conditions of the option shall be as follows:

- A. When all quarryable stone has been removed from all of the land belonging to or under the control of Wake Stone Corporation during the period of its quarrying operations and which lies between Umstead State Park and Interstate Highway 40, it shall be the duty of Wake Stone Corporation to notify the State of this fact. Upon receipt of such notice, the State shall have six months within which it may elect to have Wake Stone Corporation convey the quarry site to the State. If the State elects to have Wake Stone Corporation convey the quarry site to the State, it shall notify Wake Stone Corporation of such election within said six month period. All notices shall be by certified mail and return receipt requested. If the State fails to make an election within said six month period or shall elect not to accept a conveyance of the quarry site, the option shall thereupon terminate and Wake Stone Corporation shall have no further obligation to convey the quarry site to the State.
- B. If all quarryable stone is not removed, the right of the State to acquire the quarry site shall accrue at the end of 50 years from the date quarrying commences or 10 years after quarrying operations have ceased without having been resumed, whichever is sooner, and notices shall be exchanged at that time in the same manner and with the same time limitations as set forth in Paragraph A. above.
- C. Until the option has expired, Wake Stone Corporation shall not encumber by mortgage or deed of trust of any of the area designated "BUFFER AREA" on Wake Stone Corporation's site plan dated February 17, 1981, revised March 10, 1981 and February 14, 1991 (and the Site Plan Map dated March 1, 2001), except for purchase money security interests.

The terms and conditions relating to the donation are placed herein to prescribe generally the boundaries of the Wake Stone Corporation offer. The acceptance by the State is subject to approval by the Department of Administration and the Council of State and the ascertaining that the offer is in accord with the laws of the State and lawfully adopted rules and regulations. Further, the Department's analysis of the conditions of the land to be transferred will be in accordance with the criteria identified in the "Principles Governing the Establishment of Extension and Development of State Parks, State Recreation Areas and State Natural Areas."



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This permit, issued May 13, 1981, modified April 15, 1986, renewed and contemporaneously modified April 1, 1991, and modified February 5, 1992 and October 11, 1996, is hereby renewed this 20th day of April, 2001 pursuant to G.S. 74-52.

By: Charles H. Gardner

Charles H. Gardner, Director
Division of Land Resources
By Authority of the Secretary
Of the Department of Environment and Natural Resources



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WAKE STONE CORPORATION
P. O. BOX 190
KNIGHTDALE, NC 27545

66-763/631

DATE March 9 2001

\$ 500.00

NC DENR

DOLLARS

PAY TO THE ORDER OF

Five hundred and no/100

WAKE STONE CORPORATION

WACHOVIA

Wachovia Bank, N.A.
Raleigh, NC 27611

John R. [Signature]

FOR

Security Features
Included
Deposit to Bank

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