NCDENR
North Carolina Department of Environment and Natural Resources
Division of Land Resources
Land Quality Section

James D. Simons, PG, PE
Director and State Geologist

Beverly Eaves Perdue, Governor
Dee Freeman, Secretary

October 26, 2009

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7008 1300 0000 1123 8336

Mr. James Sprinkle
Hanson Aggregates Southeast, Inc.
2300 Gateway Centre Boulevard
Morrisville, North Carolina 27560

RE: Mining Permit Nos. 26-01, 29-13, 32-01, 32-07, 33-13, 43-01, 43-03, 43-08, 43-21, 51-05, 51-38, 68-06, 92-02, 92-03, 92-13, 96-50, 98-02, 98-13
Cumberland, Davidson, Durham, Edgecombe, Harnett, Johnston, Orange, Wake, Wayne, and Wilson Counties
Cape Fear, Neuse, Tar-Pamlico, and Yadkin-Pee Dee River Basins

Dear Mr. Sprinkle:

Your request to have the corporate name changed on the above referenced mining permits from Hanson Aggregates Southeast, Inc. to Hanson Aggregates Southeast, LLC is hereby approved. As we have received the required surety in an amount sufficient to cover these operations, I am enclosing new cover sheets for each updated mining permit. The permit numbers, expiration dates and mine names shall remain the same as before this corporate name change.

Please attach this approval letter to your existing mining permits for future reference. Please review the cover sheets carefully and notify this office of any objections, questions or corrections that may need to be addressed. I have also enclosed the old reclamation bond for your disposal.

Thank you for your cooperation in this matter. If you should have any questions, please contact Ashley Rodgers, Assistant State Mining Specialist, at (919) 733-4574.

Sincerely,

Floyd R. Williams, PG, CPG, CPM
State Mining Specialist
Land Quality Section

FRW/ar
Enclosures: Cover sheets
Seaboard Surety Company Bond No. 384401
cc: Mr. Steve Cook
Mr. Matt Gantt, PE
Mr. John Holley, PE
Mr. Pat McClain, PE
Ms. Shannon Deaton -WRC, w/enclosures
Mr. William Gerringer-DOL, Mine and Quarry Bureau, w/o enclosures
File

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF LAND RESOURCES

LAND QUALITY SECTION

PERMIT

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:

Hanson Aggregates Southeast, LLC

Crabtree Quarry

Wake County - Permit No. 92-03

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 30, 2012

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Land Resources

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

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

Land Quality Section

April 30, 2002

Mr. Allen R. King, P.E.
Hanson Aggregates East
P.O. Box 13983
Research Triangle Park, North Carolina 27709-3983

RE: Permit No. 92-03
Crabtree Quarry
Wake County
Neuse River Basin

Dear Mr. King:

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 30, 2012.

As a reminder, your permitted acreage at this site is 261.7 acres and the amount of land you are approved to disturb is 95 acres.

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

Sincerely,

Francis M Nevils Jr

Francis M. Nevils, Jr., P.E., Chief
Land Quality Section
Division of Land Resources

TED/jw

Enclosures

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

1612 Mail Service Center, Raleigh, North Carolina 27699-1612 • 919-733-4574 / FAX: 919-733-2876
512 North Salisbury Street, Raleigh, North Carolina, 27604

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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:

Hanson Aggregates Southeast, Inc.

Crabtree Quarry

Wake County - Permit No. 92-03

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 30, 2012

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

July 29, 1991: This permit has been modified to allow the expansion of the processing pond and to divert stormwater from said pond as indicated on the Process Pond Expansion sediment and erosion control plan dated May 1991.

July 13, 1992: This permit has been subsequently modified to allow the expansion of mining activities to the south side of Crabtree Creek as indicated by the Crabtree Quarry Permit Renewal Drawings dated January 1992 and revised April 1992.

April 24, 1995: This permit has been modified to change the corporate name from Nello L. Teer Company to Benchmark Carolina Aggregates, Inc.

May 16, 1997: This permit has been modified to allow an additional 7.0 acres of land on the south side of Crabtree Creek to be affected for a new tailings stockpile area, access to the stockpile area and the associated erosion and sediment control measures as indicated on the mine maps and supplemental information dated March 1997, with minor stipulations.

May 21, 1999: This permit has been modified to change the corporate name from Benchmark Carolina Aggregates, Inc. to Hanson Aggregates Carolina, Inc.

March 19, 2002: This permit has been modified to change the corporate name from Hanson Aggregates Carolina, Inc. to Hanson Aggregates Southeast, Inc.

Expiration Date

This permit shall be effective from the date of its issuance until April 30, 2002.

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. All temporary and permanent access (plant entrance) roads shall be paved or established with crushed stone for a minimum 50 linear feet from their junction with Duraleigh Road. During quarry operation, water trucks or other means that may be necessary shall be utilized to prevent dust from leaving the permitted area.

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.

   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. All buffer zones shown on the Crabtree Quarry Renewal Mine Maps dated March 2002 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 Crabtree Quarry Permit Renewal Drawings, Sheets 1 through 16, dated January 1992 and revised April 1992 shall be followed.

C. The Crabtree Quarry Permit Modification mine maps and sediment and erosion control plans dated March, 1997 shall be followed with the following stipulations:

1. Sideslopes for the tailings stockpile area shall be no steeper than two horizontal to one vertical.

2. End dumping of material during construction of the tailings stockpile area shall not be allowed unless the materials is brought up in two foot lifts and sufficiently compacted with a bulldozer.

3. If necessary to prevent erosion of the southern toe of the tailings stockpile area, the toe of the slope shall be armored with appropriately sized stone or other acceptable alternative.

D. No land disturbing activities in conjunction with the construction of the proposed bridge across Crabtree Creek shall occur at the site until detailed plans and supporting documentation has been submitted to and approved by the Department.

E. All mining activities, including the installation and maintenance of the associated sediment and erosion control measures shall be conducted as indicated on the Crabtree Quarry Renewal Mine Maps dated March 2002.

F. 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

A. All observation wells shall be drilled wells cased into consolidated rock and grouted to the surface. The wells (boreholes) shall be extended at least 50 feet below static water level, or at least 50 feet into unweathered rock, whichever is deeper. The wells shall be secured against unauthorized entry with a lockable cap. The necessary permits or approvals to construct these wells shall be obtained from the N.C. Division of Water Quality, Groundwater Section.

B. The two (2) observation wells shown on the Crabtree Quarry Renewal Mine Maps dated March 2000 shall be monitored twice a month (bimonthly) at the same day and approximate time of day for twelve (12) consecutive months following installation of the wells. The static water levels shall be measured with an accuracy of plus or minus 0.1 foot and shall be referenced to a datum point and a record of the water levels maintained. The bimonthly precipitation and the volume of pit water discharge shall also be recorded. Copies of these records shall be provided to the Department on or about the end of each month. Static water level monitoring frequency may be increased or decreased as deemed appropriate by the Department.

6. 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 initial pit opening on the south side of Crabtree Creek shall be graded to a minimum 2 horizontal to 1 vertical or flatter and shall be stabilized within 30 days of completion. Furthermore, a minimum twenty-five foot wide horizontal safety bench shall be provided at the top of the rock and at the toe of any overburden slope.

C. The Crabtree Quarry Permit Modification mine maps and sediment and erosion control plans dated March, 1997 shall be followed with the following stipulations:

1. Sideslopes for the tailings stockpile area shall be no steeper than two horizontal to one vertical.

2. End dumping of material during construction of the tailings stockpile area shall not be allowed unless the materials is brought up in two foot lifts and sufficiently compacted with a bulldozer.

3. If necessary to prevent erosion of the southern toe of the tailings stockpile area, the toe of the slope shall be armored with appropriately sized stone or other acceptable alternative.

7. 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.

8. 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.

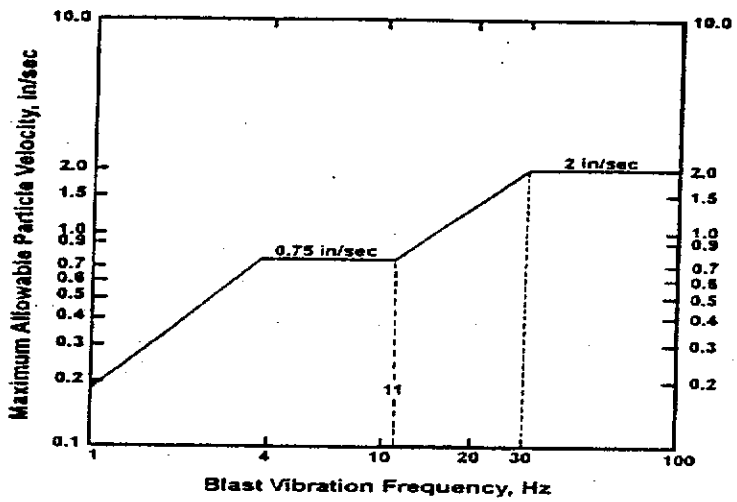

Figure 1 Alternative blasting level criteria
(Source modified from figure B-1. Bureau of Mines R18507)

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:

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

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

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.

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:

Lower Frequency Limit of Measuring System, in Hz	Max Level, in dBL
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):

$$P = 20 \times \log\ (U/2.9\times10^{-9})$$

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.

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.

9. High Wall Barrier

A physical barrier consisting of large boulders (minimum of four feet high) placed end-to-end or concrete barriers fencing shall be maintained at all times around the perimeter of any highwall to prevent inadvertent public access. In addition, a minimum 25 foot wide horizontal safety bench shall be provided at the junction between the top of rock and the toe of any overburden cut slope.

10. 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 Crabtree Quarry Renewal Mine Maps dated March 2002. In addition to grasses, long leaf and/or Virginia pines or other acceptable evergreen species shall be planted as deemed appropriate by the Department to improve visual and noise buffering.

11. Plan Modification

A. 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.

B. No land disturbing activities in conjunction with the construction of the proposed bridge across Crabtree Creek shall occur at the site until detailed plans and supporting documentation has been submitted to and approved by the Department.

12. 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;
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.

13. 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.

14. 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.

15. 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.

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.

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.

3. Revegetation Plan:

After site preparation, all disturbed land areas shall be revegetated as per the following:

Permanent Seeding Specifications

Dates	Species	Rate, Lbs/Acre
February 15- April 1	Korean Lespedeza	10
	Fescue	40
	Redtop	1
	Winter rye (grain)	15
April 1- July 31	Common Bermuda	50
August 1- October 25	Lespedeza (unscarified)	30
	German millet	40
October 25- February 15	Rye (grain- temporary)	120

Soil Amendments

Lime- 2000 lbs/acre or follow recommendations from a soil test.

Fertilizer- 1000 lbs/acre 8-8-8 or 10-10-10, or follow recommendations from a soil test.

Mulch- All seeded areas shall be mulched using small grain straw at a rate of 2000 lbs/acre and anchored appropriately.

Whenever possible, disturbed areas should be vegetated with native warm season grasses such as switch grass, Indian grass, bluestem and gamma grass.

In addition, 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.

This permit, issued July 20, 1972, renewed April 9, 1982, Modified July 29, 1991, renewed and modified July 13, 1992, and modified April 24, 1995, May 16, 1997, May 21, 1999 and March 19, 2002, is hereby renewed this 30th day of April, 2002 pursuant to G.S. 74-52.

By: Francis M. Nevils Jr

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