

40100-34-70

Application for Approval to Operate

A Quarry

Little River

Digby County

Nova Stone Exporters Inc.

Feb. 2002

APPLICATION FOR APPROVAL

OFFICE USE ONLY		Application # 2002-025483	
Date Rcv'd (yyyy/mm/dd)	Ext Ref #	NSDOE File # 92100-30	
Total Fees Due:	Fees Paid	Paid in Full	Yes <input type="checkbox"/> No <input type="checkbox"/>
Receipt #		Water Auth. #	

PLEASE PRINT OR TYPE. Complete Sections 1, 2, 3, 4 and 7 for ALL Applications. Complete areas of Sections 5 and 6 to the specific activities of this application only.

Type of Application:			
New Application <input checked="" type="checkbox"/>	Renewal <input type="checkbox"/>	Amendment <input type="checkbox"/>	Transfer <input type="checkbox"/>
If applicable, please provide the previous Approval # _____			

SECTION 1 - OWNER

FEB 16 2002

If there is one owner, please indicate who will be the primary applicant for this project and attach a copy of the title deed of owners.

Company/Organization/Municipality		Nova Stone Exporters, Inc.		YARMOUTH DISTRICT OFFICE YARMOUTH, N.S.	
Business Number (BN) if applicable		870177219			
Mr.	<input type="checkbox"/>	Ms.	<input checked="" type="checkbox"/>	Mrs.	<input type="checkbox"/>
Other:		Professional Designation			
First Name		Corinna		Middle Initial	B.
Family Name		Kincaid			
Phone Home (902)	245-3611		Business (919)	776-7239 Ext.	
Other		Ext.			
Fax (919)		774-3510			
E-mail		novastoneexporters@hotmail.com			
Civic/Street Address 42 Riverside Drive, Upper LaHave					
Mailing Address (if different than Civic) RR#3					
County Lunenburg			City/Town Bridgewater		
Province/State Nova Scotia		Postal Code B4V 2W2		Country Canada	

SECTION 2 - APPLICANT CONTACT

Is the Application Contact the same as in Section 1 - Owner? Yes No If yes, please skip to Section 3.

Company/Organization/Municipality					
Business Number (BN) if applicable					
Mr.	<input checked="" type="checkbox"/>	Ms.	<input type="checkbox"/>	Mrs.	<input type="checkbox"/>
Other:		Professional Designation P. Eng.			
First Name		Paul		Middle Initial	G.
Family Name		Buxton			
Phone Home (902)	638-8108		Business (902)	638-8108 Ext.	
Other ()		Ext.			
Fax (902)		638-8108			
E-mail		paul.buxton@ns.sympatico.ca			
Civic/Street Address 110 Colonial Arms Drive, Deep Brook, NS B0S 1J0					
Mailing Address (if different than Civic) P.O. Box 98					
County Annapolis			City/Town Annapolis		
Province Nova Scotia		Postal Code B0S 1A0		Country Canada	

SECTION 3 - SITE/LOCATION OF PROPOSED ACTIVITIES

Property Identification numbers (PID) are available at the Nova Scotia Department of Housing & Municipal Affairs.
 1:50,000 Topo Maps (identifying Easting and Northing) are available at Nova Scotia Department of the Environment Regional Offices.

Site Name Whites Cove	
Civic/Street Address Highway 217	
County Digby	Community Little River
Property Identification # (PID) 30161160	1:50,000 Topo Map # 21 B / 8
Grid Reference Easting (6) 272 (66°08'31" E)	Northing (7) 275 (44°27'47" N)

SECTION 4 - ACTIVITY

Proposed Activity - Please check all that apply.

Biotechnology:	Biological remediation	<input type="checkbox"/>	Biotechnology Products Manufacturing Plant	<input type="checkbox"/>
Chemical:	Brine Processing	<input type="checkbox"/>	Industrial Cleanser Manufacturing	<input type="checkbox"/>
	Chemical Manufacturing	<input type="checkbox"/>	Paint Manufacturing	<input type="checkbox"/>
	Coke/Carbon Manufacturing	<input type="checkbox"/>	Pesticide Manufacturing	<input type="checkbox"/>
	Explosives Manufacturing	<input type="checkbox"/>	Petrochemical Manufacturing	<input type="checkbox"/>
	Fertilizer Manufacturing	<input type="checkbox"/>	Pharmaceutical Manufacturing	<input type="checkbox"/>
	Fertilizer Storage	<input type="checkbox"/>		
	Construction:	Asphalt Paving Plant	<input type="checkbox"/>	Quarry
Building Products Manufacturing		<input type="checkbox"/>	Ready-Mix Concrete Plant	<input type="checkbox"/>
Cement Plant		<input type="checkbox"/>	Sandblasting Operation	<input type="checkbox"/>
Ground Disturbance		<input type="checkbox"/>	Sulphide Bearing Material	<input type="checkbox"/>
Pit		<input type="checkbox"/>	Topsoil	<input type="checkbox"/>
Food or Fish and Animal Byproducts:		Beer or Wine Processing Plant	<input type="checkbox"/>	Inland Fish Processing Plant
	Dairy Products Plant	<input type="checkbox"/>	Poultry Integrated Plant	<input type="checkbox"/>
	Distillery	<input type="checkbox"/>	Red Meat Integrated Plant	<input type="checkbox"/>
	Fish Meal Plant	<input type="checkbox"/>	Rendering Plant	<input type="checkbox"/>
	Fish Sillage	<input type="checkbox"/>	Tannery	<input type="checkbox"/>
	Food Additive Plant	<input type="checkbox"/>	Vegetables Processing Plant	<input type="checkbox"/>
	Fruit Processing Plant	<input type="checkbox"/>		
	Metals:	Battery Manufacturing Plant	<input type="checkbox"/>	Pewter Ware Manufacturing Facility
Electroplating Plant		<input type="checkbox"/>	Rolling Stock Manufacturing Plant	<input type="checkbox"/>
Foundry		<input type="checkbox"/>	Smelter	<input type="checkbox"/>
Iron & Steel Mill		<input type="checkbox"/>		
Minerals:	Bulk Sample Site	<input type="checkbox"/>	Mineral Processing Plant	<input type="checkbox"/>
	Bulk Solids Handling Facility	<input type="checkbox"/>	Peat Moss Harvesting	<input type="checkbox"/>
	Coal Processing Plant	<input type="checkbox"/>	Surface Mine	<input type="checkbox"/>
	Leach Mining	<input type="checkbox"/>	Underground Mine	<input type="checkbox"/>
	Lime Plant	<input type="checkbox"/>		
Oil & Gas:	Bio-Remediation	<input type="checkbox"/>	Natural Gas Processing Plant	<input type="checkbox"/>
	Brine Storage Pond	<input type="checkbox"/>	Oil Refinery	<input type="checkbox"/>
	Compressor & Pumping Station	<input type="checkbox"/>	Petroleum/Natural Gas Recovery	<input type="checkbox"/>
	Petroleum/Natural Gas Operation	<input type="checkbox"/>	Re-refinery	<input type="checkbox"/>
	Power Plants	<input type="checkbox"/>		
Primary Manufacturing:	Lead Crystal Manufacturing	<input type="checkbox"/>	Tire Manufacturing Plant	<input type="checkbox"/>
	Textile Manufacturing Plant	<input type="checkbox"/>	Wallpaper Manufacturing Plant	<input type="checkbox"/>

Proposed Activity - Continued			
Services:	Sludge Treatment	<input type="checkbox"/>	Wastewater treatment <input type="checkbox"/>
Wood Products:	Pulp Manufacturing Plant	<input type="checkbox"/>	Wood Treatment Plant <input type="checkbox"/>
	Pulp & Paper Manufacturing Plant	<input type="checkbox"/>	
Miscellaneous:	Biomedical Waste Incinerator	<input type="checkbox"/>	Industrial Incinerator <input type="checkbox"/>
	Cemetery	<input type="checkbox"/>	Industrial Landfill <input type="checkbox"/>
	Crematorium	<input type="checkbox"/>	Industrial Composting <input type="checkbox"/>
	Dredge Spoils Disposal	<input type="checkbox"/>	Land Application of Waste <input type="checkbox"/>

Will this Activity employ a new technology?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
If Yes, please specify.				
Proposed Project Dates, if applicable (yyyy/mm/dd)				
Start Construction Date	2002/3/15	Start Operations	2002/4/15	End/Closure Date 2032/6/15

SECTION 5 - ACTIVITY DETAILS

Proposed Operating Schedule	Hours/Day <u>16</u>	Days/Week <u>7</u>	Weeks/Year <u>50</u>
Type of Facility	Mobile	OR	Permanent <input checked="" type="checkbox"/>

SECTION 6 - SUPPORTING DOCUMENTATION TO ATTACH

All supporting documentation is to be submitted in accordance with the "Approvals Procedures Regulations." If applicable, the following documents must be submitted with this Application; however, additional information may be requested.

Note - A legend must be supplied for all mapping describing symbols used, scale and north orientation.

<input checked="" type="checkbox"/>	Copy of the property deed, lease or letter proving the applicant's legal right to conduct the activity on the site.
<input checked="" type="checkbox"/>	Copy of Registry of Joint Stocks printout showing the official company name, President & CEO, its agent, and verifying that the company is registered in good standing.
<input type="checkbox"/>	Copies of all existing approvals relating to the activity that have been issued by any agency.
<input checked="" type="checkbox"/>	A process description for the activity including (but not limited to): type of industry, size & capacity, raw materials & water used, discharge point, quantities of dangerous goods anticipated for use and material safety data sheets.
<input checked="" type="checkbox"/>	If applicable, a description of blasting methods and schedule.
<input type="checkbox"/>	Security (bond, cheque, etc.) for the proposed operation (if applicable).
<input checked="" type="checkbox"/>	Preliminary development, abandonment or rehabilitation plan.
<input checked="" type="checkbox"/>	Site Plan (scaled drawing, minimum scale 1:2,000) including (but not limited to): property boundaries, contours of the site & adjacent properties, location of all relevant structures, location of nearby watercourses, wetlands, dwellings, wells, water supplies, public roads & highways.
<input checked="" type="checkbox"/>	Scaled engineering drawings, plans, and specifications that are stamped by a N.S. Licensed professional engineer including (but not limited to): <ul style="list-style-type: none"> - Plans and drawings for structures & equipment used to obtain satisfactory treatment of wastes resulting from industrial processes. - Sufficient data to demonstrate the feasibility of a process to supply satisfactory treatment. - Reports on the proposed treatment facilities indicating design capacities, flows, & concentrations of wastes expected to be emitted to the environment. - Calculations, factors, & parameters used in the design of waste control systems.
<input checked="" type="checkbox"/>	Description of all liquid effluents discharged from the process/property including (but not limited to): <ul style="list-style-type: none"> - Quality & quantity of all surface discharge waters that have contacted unstabilized areas prior to discharge. - Quality & quantity of each liquid effluent discharge before or after treatment. - Quality should include (if present) the concentration or levels of pH, temperature, chlorine residual, BODs, suspended solids, acute toxicity, heavy metals, total petroleum hydrocarbons, total oil & grease, total dissolved solids, ammonia & phosphorus, etc.
<input type="checkbox"/>	Description of all air emissions discharged from the processes (stacks, vents, etc.) including (but not limited to): <ul style="list-style-type: none"> - Stack height above base (metres), elevation at base (metres), stack top inside diameter (metres), flow velocity through the stack exit (metres/sec), temperature of stack gas at exit (°C). - Maximum and average daily concentrations of total particulate, total suspended particulate, specific particulates, metals, gases (general and odorous), carbon monoxide, VOCs, carbon dioxide, oxygen, oxides of nitrogen, hydrogen sulfide, sulfur dioxide and polyaromatic hydrocarbons before and after treatment. - Capacity, type of fuel used, sulphur content of fuel, higher heating value of fuel, monitoring equipment to be employed and soot blowing schedule if the process is a boiler or heating plant.

X	Description of all solid wastes that require disposal, including (but not limited to): <ul style="list-style-type: none"> - Quality and quantity of all solid wastes with an indication of whether they are considered waste dangerous goods with applicable federal and provincial legislation. If necessary, leachate extraction procedure data should be submitted. - Location and method of solid wastes disposal. - Storage quantities of all wastes prior to disposal with storage site capacity & schedule of disposal. - Supporting geotechnical & hydrological findings if waste is to be landfilled.
	Contingency plan, including (but not limited to): <ul style="list-style-type: none"> - Scope of the plan (purpose, geographic area, and persons, groups, eg., that have responsibility) - Notification procedures (what is to be reported, when, to whom, internal & external reporting procedures and a 24 hour telephone response number. - Notification list including names & telephone numbers for all key internal response team personnel, telephone number for reporting environmental emergencies in N.S., relevant municipal/local telephone numbers (fire, police, ambulance, medical/hospital, clean-up contractors, etc.) and government assistance services such as CANUTEC. - Identification of a response team leader and the role of the response team leader respecting decision making, focal point, report preparation and submission, etc. - Proposed containment and clean-up procedures. - Proposed transportation procedures. - Site restoration plan (in case of an accidental discharge) that will ensure that the area is rehabilitated to its pre-spill condition. - Proposed disposal procedures. - Available resources including manpower, contractors, treatment materials, expertise, communications, countermeasure equipment, etc. - Public relations including the identification of an individual who can speak on behalf of the approval holder. - Incident reporting procedures and investigative follow-up procedures.

If information submitted is incomplete, or if supporting documentation is of poor quality (plans, maps, etc.), the application may be delayed, returned, or rejected.

SECTION 7 - DECLARATION

Correspondence is to be returned to: Owner OR Application Contact

Information in this application package which the applicant considers to be confidential business information should be clearly identified.

Are you making this request? Yes No

If yes, please indicate which information in the Supporting Documentation is considered confidential.

The entire "Application For Approval" is to be considered "Confidential Business Information" until the time that approval is granted.

Owner's Signature Corinna B. Kincaid, President, NSE Date (yyyy/mm/dd) 2002/1/16

Name (Please print or type) Corinna B. Kincaid, President, Nova Stone Exporters, Inc.

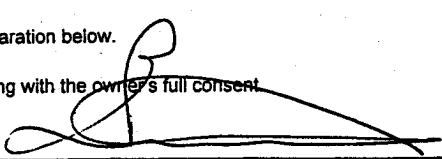
OR

Owner's Authorization (Letter of Authorization attached)

If you are acting on behalf of the owner, you must:

1. Attach a letter of authorization from the **Owner** identified on Page 1, Section 1, of this application.
2. Identify yourself as the **Application Contact** on Page 1, Section 2, of this application.
3. Sign the declaration below.

I certify that I am acting with the owner's full consent

Signature  Date (yyyy/mm/dd) 2002/02/15

Name (Please print or type) Paul G. Buxton

NSE Nova Stone Exporters Inc.

Producers and Exporters of Quality Controlled Aggregate Products

PO Box 98
Annapolis, NS
B0S 1A0

January 16, 2002

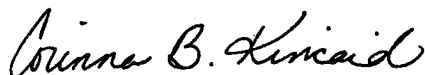
Attn: Mr. Paul Buxton, P. Eng.

Re: Letter of Authorization

Dear Mr. Buxton:

Nova Stone Exporters, Inc., hereby authorizes you, Paul G. Buxton, P. Eng, to act on our company's behalf in all areas surrounding the Nova Scotia Department of the Environment quarry permit we are seeking for Digby Neck, NS.

Sincerely,



Corinna B. Kincaid
President, Nova Stone Exporters, Inc.

42 Riverside Drive • Upper LaHave • Nova Scotia • B4V 2W2
Cell: (902) 245-3611
Tel: (919) 776-7239
Fax: (902) 774-3510
Email: novastoneexporters@hotmail.com

Name History

NOVA STONE EXPORTERS INC.

Profile

Type: N.S. Limited Company

Status: Active

Status Date: 2001-Jul-23

Next Renewal Date: 2002-Jul-31

Jurisdiction: Nova Scotia

Mailing Address:

PO BOX 366
ANNAPOLIS ROYAL NS B0S 1A0
Canada

Civic Address/Registered Office:

234 ST. GEORGE ST.
ANNAPOLIS ROYAL NS B0S 1A0
Canada

Original CA#:

Original CRA#:

Nature Of Business:

E Mail:

Phone:

Fax:

Activity History

<u>Activity</u>	<u>Filed Date</u>
Incorporated and Registered	2001-Jul-20
Special Resolution	2001-Jul-26
Appoint an Agent	2001-Jul-26
Address Change	2001-Jul-27
Change of Directors	2001-Jul-27

People

Name: MACARTHUR, RODERICK K. (Q.C.)

Position: Recognized Agent

Civic Address:

234 ST. GEORGE ST.
ANNAPOLIS ROYAL NS B0S 1A0
Canada

Mailing Address:

PO BOX 366
ANNAPOLIS ROYAL NS B0S 1A0
Canada

Name: KINCAID, CORINNA

Position: Director

Civic Address:

42 RIVERSIDE DRIVE
BRIDGEWATER NS B4V 2W2
Canada

Mailing Address:

Occupation: Businesswoman

People (cont'd)

Name: KINCAID, CORINNA

Position: Officer

Civic Address:

42 RIVERSIDE DRIVE
BRIDGEWATER NS B4V2W2
Canada

Mailing Address:

Office Held: PRES/SEC/TRES

1.0 PROJECT DESCRIPTION

1.1 Agreements and Assignments

Southern Stone Company Incorporated, a North Carolina Corporation, has entered into a lease agreement with the owners of a parcel of land containing approximately 350 acres located in Digby County, Nova Scotia, (PID #30161160). This lease agreement grants Southern Stone Company Incorporated the right to extract and remove aggregate from the land for a period of 30 years. (Appendix A)

Southern Stone Company Incorporated has assigned the above noted lease and the right to extract and remove aggregates from the subject land to Nova Stone Exporters Inc. under the same terms and conditions as the lease agreement between Southern Stone Company Inc. and the owners of the property. (Appendix B)

1.2 The Project

Nova Stone Exporters Inc. is proposing to develop and operate a basalt quarry on the property noted above under the assigned lease from Southern Stone Company Inc. The proposed operation, including water treatment facilities is designed to occupy 10 acres or approximately 3% of the property.

It is proposed that approximately 50,000 metric tons of basalt will be quarried and crushed per month and it is anticipated that the majority of the production will be loaded by a conveyor system to a moored ship.

The rock will be quarried in 40' lifts on a 400' face which will advance to the south and the total area to be quarried under this permit application will be approximately 6.5 acres.

4.05 ha

is this included in the 10 acres.

The production pad will occupy an area of approximately 2.0 acres. Project components in this area will include a crusher complex and wash plant, product stockpiles and a space designated for temporary storage of scrap material. The crusher complex will move south as the quarry face advances.

Storm run off from the quarry site will be collected and directed to a main settling pond for treatment prior to release.

Run off from the production pad will be directed to a two cell, closed circuit wash pond system for treatment and recycling to the wash plant. Make up water will be produced by drilling a well or wells on the property.

The quarry office, fuel tanks and a storage shed for miscellaneous lubricants will be located to the east side of the production pad.

2.0 Quarry Operation

2.1 The Quarry

Nova Stone Exporters Inc. is proposing to quarry rock in 40' lifts with a 400' face. Rock will be extracted from the site using standard drill and blast techniques and transported to the crusher in "off road" vehicles. Initially portable crushing equipment will be used until sufficient area is developed to allow more permanent equipment placement.

Haul roads within the quarry will be designated and dust will be controlled by water sprays on an as required basis. If dust generated by rock drills becomes a problem it will be controlled by either wetting the drill holes or installing dust suppression devices on the drilling equipment.

2.1.1 Noise

No special noise control devices are proposed for the rock drills and on site vehicles but monitoring stations will be located on the property line to ensure that the sound levels limits set out in the Pit and Quarry Guidelines are not exceeded.

2.1.2 Blasting

The proposed blasting program, anticipating one blast per month, is designed to maintain peak particle velocities (seismic vibration) below 125 mm/second (0.5 inches/second) and sound levels (air concussion) below 128 dBA at the property boundaries. A typical blast design for this operation is shown in Appendix C.

All blasts will be monitored for the parameters outlined above and all monitoring results will be forwarded to the Nova Scotia Department of Environment and Labour (NSDEL) on a monthly basis.

Blasting will not take place on a Sunday, on a Statutory holiday nor on any day between the hours of 1800 hours and 0800 hours.

The proponent will conduct a pre-blast survey of all structures within 300 metres of the point of blast. This survey will be conducted in accordance with the NSDEL's "Procedure for Conducting a Pre-Blast Survey".

No blasting will take place if a thermal inversion is anticipated at the time of the proposed blast.

2.1.2.1. Affect of Blasting on Whales

Discussions have been undertaken with Dr. Jon Lein of Memorial University with respect to possible effects on whales from the blasting operation. Dr. Lein conducted studies at Bull Arm, Newfoundland, during the construction of off shore platforms for oil exploration and production, on the affect of blasting on whales. Blasting at Bull Arm was carried out underwater and it was found that noise levels from underwater blasts could seriously affect the hearing mechanisms of whales.

Blasting at the subject site will be conducted on shore and Dr. Lein is of the opinion that there is a low probability of significant conduction to the water due to the on shore location of the blast and the dampening effect of the mud layer in the Bay.

However, the proponent intends to enlist the support of the Bedford Institute of Oceanography to conduct a survey of noise transmission using hydrophones during the initial blast which will take place when whales are not present in the Bay (October to May). This survey will collect hard data on noise levels in the Bay due to the blasting procedure. Should noise levels be recorded that are deemed injurious to whales modifications will be made to the blasting procedure to ensure that noise levels are reduced to non injurious levels.

2.2 Aggregate Production

The production pad will occupy 2.0 acres of land inside the quarry area to the north of the quarry face. This area and the area for the settling and wash ponds was previously used as a quarry and is relatively level. As noted earlier the pad will contain a crusher complex, wash plant, product stockpiles and a temporary scrap disposal area. The pad will be sloped to the north toward a wash pond system and a main settling pond.

Neither the quarry face nor the production pad is visible from surrounding areas with the exception of from the west ie: from the Bay. Primary environmental concerns with the pad include noise, dust and runoff including effluent from the wash plant.

2.2.1 Noise

The most important source of noise is the crusher complex. Noise associated with the crusher operation can be classified as two types: continual noise from the action of the crushers and the intermittent noise of rock being dumped into the hopper feeding the primary crusher. The proponent has recognized these noise sources and both the quarry

and the production pad have been located to maximise the benefit of the natural site geometry ie: the noise generating elements have been located at the base of the hill as far from surrounding occupancy as possible.

The proponent will observe the following sound level limits at the property boundaries of the quarry:

Night	Evening	Day
55 dBA	60 dBA	65 dBA

Night: 23:00 - 07:00, All Day Sunday and statutory Holidays

Evening: 19:00 - 23:00 Hours

Day: 07:00 - 19:00 Hours

2.2.2 Dust Control

Effective control of dust from the operation of the crusher complex will be maintained by the use of spray bars. In addition, if necessary, the product stockpiles will be sprayed to control fugitive dust.

3.1 Wash Ponds

The process wash ponds are located north of the production pad and immediately west of the main settling pond. They are intended to collect runoff from the plant, crushing and stockpiling areas, treat water used to wash product and act as a reservoir for wash water ie: water not lost to evaporation and processing will be recycled.

Layout of the wash ponds is shown in dwg 5 and design parameters are set out in Appendix D.

3.1.1 Water Usage

It is estimated that between 25 gpm (normal dust suppression) and 80 gpm (during product wash cycle) of water will be used. Water will be drawn from the second wash pond and make up water as required will be provided from a well or wells drilled on site.

3.2 Settling Pond

The settling pond is located on the north side of the site, east of the wash ponds and the layout is shown in dwgs 3 and 4.

The settling pond is designed to remove suspended solids contained in runoff from disturbed areas only ie: the quarry itself and the production pad with a total area of 8.4 acres. Runoff from undisturbed areas will be routed around the disturbed areas and the settling pond.

The settling pond is designed to retain runoff from a ten year storm with the combined spillway being designed for a twenty five year event. The design parameters of the pond are set out in Appendix E.

While the production pad is sloped to the north towards the settling pond precautions will be taken to prevent runoff from moving to the west (ie: towards the beach) by the installation of a berm along the west side of the quarry and production pad.

The settling pond has been designed to meet the following suspended solids concentrations prior to discharge to the Bay:

- a) Maximum suspended solids concentration in any grab sample - 50mg/l;
- b) maximum arithmetic monthly average suspended solids concentration - 25mg/l.

The settling pond is designed to be cleaned out when the depth of sediment reaches 3.25'.

A depth gauge will be installed in the pond to indicate the level of sediment.

3.3 Separation Distances for Quarry Operation

Separation distances as set out in the NSDEL Pit and Quarry Guidelines are maintained as follows:

1) No person responsible for the operation of a quarry shall locate the associated works within:

a) 30m of the boundary of a public or common highway unless the person has written consent from the Department of Transportation and Public Works to operate closer:

Distance Maintained: 1000m

b) 30m of the bank of any watercourse or the ordinary high water mark:

Distance Maintained: 35m

c) 30m of the boundary of the property on which the quarry is located:

Distance Maintained: 485m

2) No person responsible for the operation of a quarry shall blast within:

a) 30m of the boundary of the public or common highway unless the person has written consent from the Department of Transportation and Public Works:

Distance Maintained: 1000m

b) 30 m of the bank of any watercourse or the ordinary high water mark:

Distance Maintained: 35m

c) 800m of the foundation or base of any structure located off site. Structure includes but is not limited to a private home, a cottage, an apartment building, a school, a commercial building, a treatment facility associated with the treatment of municipal sewage or landfill effluent, an industrial building or structure, a hospital, nursing home etc.

Distance Maintained: 950m

d) 15m of the property boundary when a structure on the abutting property is not involved:

Distance Maintained: 485m

4.0 Fuel Storage

Gasoline and diesel fuel will be stored in a 4500 litre above ground tank located in the vicinity of the east side of the production pad. The tank will be protected from stray rock from the blasting operation and fuel spills will be contained by both secondary containment and a containment dyke. The system will be locked to deter vandalism.

The fuel storage facility will be installed, operated and maintained in accordance with NSDEL guidelines on the "Storage and Handling of Gasoline and Associated Products".

Small quantities of lubricating oils and greases will be stored in a shed to be constructed for that purpose.

All waste oils will be collected in metal drums and disposed of in accordance with the regulations.

5.0 Sediment Control During Site Development

The proposed development sequence is:

1. Clear cut settling pond and production pad areas.
2. Construct diversion ditches for undisturbed area.
3. Construct main settling pond.
4. Develop production pad and wash ponds.
5. Clear quarry site.
6. Begin operation.

Sediment control practices used for highway construction projects will be used and generally in accordance with "Erosion and Sedimentation Control - Handbook for Construction Sites" NSDEL.

6.0 Monitoring

A monitoring program will be established by the proponent to ensure that the levels set out above for Liquid Effluent Discharge, Sound Levels, Concussion and Ground Vibration are not exceeded and the results of the monitoring program will be forwarded to the NSDEL on a monthly basis.

7.0 Waste Disposal

The proponent intends to remove settled material from the wash ponds and settling pond as necessary. This material will be stored temporarily in the quarry area in a bermed storage area and will ultimately be incorporated into soil material for site rehabilitation. As noted above, industrial wastes such as lubricating oils will be collected and stored on site. Periodically these wastes will be removed and disposed of in accordance with the requirements of the NSDEL.

Portable toilets will be used on site for employees and these will be emptied under contract on a regular basis.

8.0 Site Rehabilitation

The proponent intends to rehabilitate the site in accordance with the preliminary plan submitted with this application, dwg 7, and complete the rehabilitation within six months of completing the quarrying operation on this site. Where possible, for example to the berm to the west side of the site, rehabilitation will commence upon the completion of the element.

9.0 Site Security

The site will be secured with gates to prevent unauthorized entry to the site and warning signs as required will be posted at the quarry entry point off Highway 217.

Appendix A

AGGREGATE LEASE AGREEMENT

THIS LEASE AGREEMENT, made and entered into this 27th day of November 2001,
BY AND AMONG

Southern Stone Company Incorporated (and its principals, Orus F. Patterson III, President and Corinna B. Kincaid, Vice President), a North Carolina Corporation, hereinafter referred to as "SSC"

AND

Jason R. Lineberger and Lida C. Lineberger, of Dallas, North Carolina, John A. Johnson and Joan L. Johnson, of Siler City, North Carolina, hereinafter referred to as "Owners".

WITNESSETH:

GRANTING CLAUSE: For and in consideration of the sum of ONE DOLLAR (\$1.00) the receipt of which from SSC, the "Owner's" acknowledge, and for the further consideration of the royalties, covenants, and agreements hereinafter set forth, the "Owners" do hereby demise, lease, and let unto SSC the following described property:

All that tract of property which is located in Digby County, Nova Scotia, Canada, which contains approximately three hundred and fifty (350) acres, and with P.I.D. #30161160 and with Deed Book Number 576, Document 36, one of the Land Records of Digby County, Province of Nova Scotia*.

(*see Schedule A, attached)

MINING/EASEMENTS: The above described grant is together with all necessary and convenient rights for the proper extracting and removal of all aggregate in and underlying the above described tract of land including the necessary rights-of-way for transportation of machinery and equipment and for hauling/shipping of harvested aggregate from the quarried area to the public road or to the ocean shipping area; provided, however, that any and all roadways or rights-of-way used by SSC shall be in compliance with provincial and federal regulations.

TERM OF LEASE: TO HAVE AND TO HOLD said aggregate rights for a term or period of thirty (30) years from the date hereof, with the right on the part of SSC to extend this Agreement, upon the renegotiated terms and conditions as are contained herein, for such time as may be required to extract, harvest, exploit and sell stone products from said leased land, provided, however, that SSC shall give "Owners" sixty (60) days written notice prior to the expiration of the terms provided herein of SSC's intention to extend. If SSC determines that there is no marketable and extractable aggregate underlying said land, SSC will immediately cancel this lease. No additional mineral rights are granted pursuant to the lease. SSC has the right for future development of business as a result of infrastructure improvements made by SSC to the property. SSC will pay the "Owners" 50% of the net profits that generated from additional business or activity not directly related to the aggregate operations of SSC on the aforementioned property.

The "Owners" may be allowed to use the land covered by the lease for additional purposes, other than for the purposes for which the lease has been given, provided such uses do not interfere directly or indirectly with SSC's operations, provided that the "Owners" have requested this usage in writing, specifically detailing the reasons for usage, and provided that the "Owners" have received written permission from SSC confirming that the land may be used for the outlined purpose(s). Additionally, the "Owners" agree to waive SSC's liability and save SSC harmless from any and all acts regarding the aforementioned usage.

FIXED RATES/ROYALTIES: SSC shall pay the "Owners" according to the following payment schedule:

SSC shall pay the "Owners" one thousand United States Dollars (\$1,000.00 USD) as of the 27th of November, 2001 and another one thousand United States Dollars (\$1,000.00 USD) upon core sample approval.

After the first year of the lease, SSC shall pay the "Owners", per calendar year, a fixed rate of forty-eight (48) thousand United States Dollars (\$48,000.00 USD) or Royalties in the amount of six one-hundredths of a United States Dollar (\$0.06 USD) per tonne of aggregate produced and shipped, whichever is greater.

COST OF LIVING: The aforementioned Royalties will be subject to a yearly adjustment to account for changes in the average Consumer Price Index (CPI) in the State of North Carolina. This adjustment will occur January 1st of each year.

PAYMENT OF FIXED RATE/ROYALTIES: Fixed payments or Royalty payments, for aggregate extracted and shipped by SSC, whichever one of the two applies to the month in question, shall be made on the 25th day of the calendar month proceeding the month billing reflects (e.g. A fixed payment for January would be due February 25th). If a payment date falls on a weekend or holiday, the payment shall be made the first business day proceeding said weekend or holiday.

All payments shall be equally divided between the "Owners", with one (1) fifty percent (50%) share sent to Jason R. Lineberger and Lida C. Lineberger (i.e. 25% each) and the remaining fifty percent (50%) share sent to John A. Johnson and Joan L. Johnson (i.e. 25 % each) to a total of one hundred percent (100%) of the fixed rate or royalties, whichever is applicable.

BOUNDARY LINES AND TIMBER: SSC may, at its expense, survey the boundary lines in order that the true and correct boundary of the lands of the "Owners" shall be located, determined and properly marked. SSC will mark the area needed for aggregate removal, and will give "Owners" one hundred and twenty (120) days from the date on which the area is marked to remove the timber from the designated area. All timber not removed within the said one hundred and twenty (120) days will be disposed of by SSC.

MINING OPERATIONS: SSC shall conduct its afore-described extraction (mining) operations on the leased premises in a proper and skillful manner in order to secure the greatest possible recovery of merchantable aggregates from the property. SSC shall conduct these operations in accordance with all existing local, provincial, and federal regulations pertaining to this type of operation. All mining activities shall be in accordance with all Nova

Scotia Department of Environment and Labour rules and regulations, including but not limited to, reclamation and bonding of the operation.

INDEMNIFICATION: SSC shall save, indemnify and keep harmless the "Owners" or any of them from and against any and all claims, damages, judgments, fines, penalties, and losses of any nature (specifically including, but not limited to, claims for personal injuries and property damage) arising in any manner from the mining operations or other activities of SSC on the property hereunder, providing the same does not derive from or arise from the fault or negligence of the "Owners". SSC shall at all times carry and maintain in effect Worker's Compensation Insurance, in accordance with all legal requirements, and adequate casualty and property insurance and public liability insurance.

CONSENT: "Owners" agree to execute on SSC request any consent, disclaimer, or other form that may be necessary to obtain mining permits or be otherwise required by any federal, provincial or other governmental agency having jurisdiction with regard to the mining operations envisaged by this Lease.

ARBITRATION: In the event any dispute arises between the "Owners" and SSC concerning the terms and provisions of this Agreement, including the payment of any monies due under this Lease, and the parties cannot agree among themselves upon a proper resolution of the dispute, then they agree to submit the matter to arbitration and the decision of the arbitration panel shall be final and binding upon the parties. The arbitration panel shall be selected as follows: "Owners" and SSC shall each select an arbitrator and the two so chosen shall select a third arbitrator. The decision of a majority of the arbitrators shall control, and all costs of the arbitrators shall be divided equally between "Owners" and SSC.

CONTROL: SSC is an independent contractor, and no control of the method or manner of the extracting and shipping of the aggregate, as hereinafter provided, is retained by the "Owners". This shall include any control or determination as to when said extracting operations shall commence or terminate.

ASSUMPTION OF LIABILITY: SSC hereby assumes any and all responsibility for and hereby agrees to save free and harmless the "Owners" from any liability for injuries occurring to persons or their property resulting from or associated with the extracting and shipping of aggregate, the subject of this Agreement.

DEFAULT: In case of any default by SSC in the performance of any of the terms and conditions of this Agreement or in payment of any royalties due and owing, the "Owners" shall give written notice of such default to SSC, and if the same is not corrected within thirty (30) days after such written notice is received, then and in such event the "Owners" shall have the right to cancel and terminate this Agreement forthwith. Upon the termination, expiration, or cancellation of this Agreement, SSC shall surrender up quiet and peaceable possession of the demised premises to the "Owners" ninety (90) days after the written notice to vacate has been issued.

MACHINERY AND EQUIPMENT: It is agreed between the parties hereto that any tools, machinery, buildings, or equipment brought or placed upon the premises hereby leased in connection with the mining operations contemplated under the terms of this Agreement shall remain the property of SSC, if placed thereon by SSC, and may be removed at the expiration of this Agreement or within ninety (90) days thereafter, unless

there be default in the terms thereof or arrearages in the rentals or royalties due and payable hereunder.

TERMINATION OF USE: Upon termination of its use of all or any portion of the lands, SSC shall remove, at its cost, all of its machinery or equipment, not including the wharf facility, within ninety (90) days. If deemed necessary by the "Owners", SSC will pay for the cost of an environmental assessment of the site and pay all costs associated with any necessary remedial measures.

TERMINATION CLAUSE: If SSC determines at any time that the aggregate underlying the premises hereby leased and demised becomes unprofitable for SSC to continue operations, or, if the quality of the said aggregate, in the opinion of SSC, is unmerchantable, or for any other reason, then SSC may terminate this Lease by giving written notice to "Owners" sixty (60) days in advance of said termination date.

DAMAGES: SSC agrees to replace any fence and repair any roads damaged by said operations and to be responsible for any other damage directly caused by said operations.

COVENANTS OF TITLE: "Owners" covenant that they have good right and title to the lands and property demised and the right to lease the same, and that SSC shall have quiet and peaceable possession of the same during the continuance of this Lease, and that they will warrant generally the property demised.

TAXES: "Owners" agree to pay all Provincial, County and Federal taxes and other such taxes and payments incident to the ownership of the said property that may be assessed against the property with the exception of the following. SSC will be responsible for (pay) all taxes levied on improvements and equipment placed on said property by SSC and any increase in the owner's taxes as a direct or indirect result of SSC's operations.

ASSIGNMENT: This Agreement shall be freely and fully assignable.

SUCCESSORS AND ASSIGNS: It is agreed that the covenants, agreements, conditions and stipulations herein contained to be performed by either of the parties shall be binding upon the parties, their respective successors and assigns.

RECORDS INSPECTION: SSC grants "Owners" or their representatives the right to inspect all of SSC's books, records and accounts/performance audits to confirm the amounts due to "Owners", and duplicate records of amounts of all stones harvested from the site shall be provided to "Owners" on a monthly basis. Any and all information obtained within "Records Inspection" shall be kept strictly confidential between SSC and "Owners". Any unauthorized use of this information will result in harsh penalties laid upon the offending party.

OPERATIONS INSPECTION: SSC grants "Owners" or their representatives the right to inspect operations at any time to satisfy "Owners" that SSC is not breaching any of its contractual obligations to "Owners" or any applicable law or regulation. Any and all information gleaned from these inspections is to be kept strictly confidential between SSC and the "Owners". Any unauthorized use of this information will result in harsh penalties laid upon the offending party.

FORCE MAJEURE: It is mutually agreed between the parties hereto that in the event of unavoidable delays in the operations of SSC due to strikes, lockouts, labor difficulties

(whether such strike, lockout or labor difficulty involves employees of SSC or others), governmental restraint, market conditions, accidents, or acts of God, SSC shall then give the "Owners" prompt written notice of such "force majeure" with reasonable full particulars concerning it. Thereupon, the obligations of SSC so far as it is affected by the "force majeure" shall be suspended during, but no longer than, the continuance of the "force majeure". Should the "force majeure" extend beyond a twelve (12) month period, SSC shall pay a fixed term of one thousand United States Dollars (\$1,000.00 USD) per month until said "force majeure" has been resolved.

ENTIRE AGREEMENT: This Agreement contains the entire understanding of the parties, and there are no representations, warranties, covenants, or undertakings other than those expressly set forth herein.

IN WITNESS WHEREOF, the parties have each duly executed this instrument, this the day and year first above written.

Southern Stone Company Incorporated (SSC)

By: *Orus F. Patterson III*
Orus F. Patterson III, President

Corinna B. Kincaid
Corinna B. Kincaid, Vice President

AND

"Owners"

Jason R. Lineberger
Jason R. Lineberger

Lida C. Lineberger
Lida C. Lineberger

John A. Johnson
John A. Johnson

Joan L. Johnson
Joan L. Johnson

STATE OF NORTH CAROLINA
COUNTY OF LEE

I, undersigned, a Notary Public in and for said County and in said State, hereby certify that Jason R. Lineberger, Lida C. Lineberger, John A. Johnson, Joan L. Johnson, Orus F. Patterson III and Corinna B. Kincaid, whose names are known to me, acknowledged before me on this day that, being informed of the contents of said instrument, they executed the same voluntarily on the day the same bears date.

Given under my hand and official seal this the 27 day of November, 2001.

Sara S. Tallerson
NOTARY PUBLIC

My commission expires:

3/16/2002

SCHEDULE "A"

LOT NO. 1 ALL that certain piece or parcel of land situated at White Cove on the Bay of Fundy Shore and bounded as follows:

BEGINNING at a post on the Old Shore Road just Northeast of the Second Bridge (Southwest corner of Lot) and running 150 yards in a Southeasterly direction to a certain tree at the top of the hill;

THENCE running in a Northeasterly direction 100 yards along top of hill;

THENCE running in a Northwesterly direction 150 yards to a certain tree located in the center of an old field;

THENCE running 100 yards across field in a Southwesterly direction to the PLACE OF BEGINNING.

CONTAINING approximately three (3) acres more or less.

AS conveyed by Thomas Carty et ux to Harvey L. Denton by Deed dated 29 May, 1944 and recorded at the Registry of Deeds in Book 162 on December 13, 1944.

LOT NO. 2 ALL that certain block of land situated on the North side of Little River and bounded as follows:

COMMENCING at a certain post at the corner of lands owned by George Addington;

THENCE 40 rods, more or less, in a Northeasterly direction to the gate at White Cove Road along lands owned by Spurgeon Trask;

THENCE running in a Northerly direction along lands owned by Walter Theriault to a certain rock at the end of the Walter Theriault lot a distance of 350 rods, more or less;

THENCE continuing in the same Northerly direction to lands owned by the late Samuel Gidney, a distance of 25 rods, more or less;

THENCE in a Westerly direction along the lands of the late Samuel Gidney down to the Bay of Fundy Shore to a spot known as the Rockweed Hole;

THENCE running along the Bay of Fundy Shore in a Southerly direction a distance of one mile, more or less to land owned by George Addington;

THENCE running Easterly along said lands of George Addington to the POINT OF BEGINNING.

COMPRISING in all, 250 acres more or less.

AS conveyed by Thomas Carty et ux to Harvey L. Denton by Deed dated 7 January, 1946 and recorded at the Registry of Deeds in Book 165, page 84 on April 3, 1946.

LOT NO. 3 ALL that certain lot, piece, or parcel of land situated at Little River in the County of Digby, Province of Nova Scotia and located on the North side of the Main Highway between Mink Cove and Tiddville, and bounded as follows:

NAMELY by a line beginning at the top of the mountain and running along lands belonging to the Estate of Henry Addington, deceased, and Harvey L. Denton in a Northerly direction of 200 rods more or less, to a point on the Bay of Fundy shore;

THENCE along Bay of Fundy shore in a Westerly direction for a distance of 40 rods more or less, to the lands of Reginald Trask;

THENCE along lands of Reginald Trask in a Southerly direction for a distance of 200 rods, more or less;

THENCE along lands belonging to Wilbert Denton (the said Wilbert Denton's land being bounded by certain set on the brow of the mountain) in an Easterly direction a distance of 40 rods more or less, to the POINT OF BEGINNING.

THE above described lot of land CONTAINING 97 acres more or less.

AS conveyed by George Addington et ux to Harvey L. Denton by Deed dated 17 May, 1947.

Appendix B

SSC SOUTHERN STONE COMPANY

ASSIGNMENT OF LEASE

Southern Stone Company, Inc (SSC) hereby assigns Nova Stone Exporters, Inc. (NSE) the right to extract, harvest, exploit and sell stone products from the tract of property, P.I.D.#30161160, Deed Book # 576, Document 36, one of the Land Records of Digby County, Province of Nova Scotia (see Schedule A, attached).

It is understood by both SSC and NSE that the right to extract, harvest, exploit and sell stone products from the aforementioned tract of land, requires a Nova Scotia Mining Permit and must abide by the terms set forth in the lease agreement for said property between SSC and Jason R. Lineberger, Lida C. Lineberger, John A. Johnson and Joan L. Johnson (see Schedule B, attached). The obtaining of the Nova Scotia Mining Permit for this property is strictly the responsibility of Nova Stone Exporters, Inc.

Southern Stone Company assigns the above for the sum of \$0.47 USD (forty-seven one-hundredths of a United States Dollar) per metric tonne.

The affixation of signatures below, indicates that both parties have read and agree to the above terms and conditions.

Corinna B. Kincaid
Corinna B. Kincaid,
President, Nova Stone Exporters, Inc.

Jan. 16/02
Date

Orus F. Patterson III
Orus F. Patterson III,
President, Southern Stone Company, Inc.

Jan. 16, 2002
Date

SCHEDULE "A"

LOT NO. 1 ALL that certain piece or parcel of land situated at White Cove on the Bay of Fundy Shore and bounded as follows:

BEGINNING at a post on the Old Shore Road just Northeast of the Second Bridge (Southwest corner of Lot) and running 150 yards in a Southeasterly direction to a certain tree at the top of the hill;

THENCE running in a Northeasterly direction 100 yards along top of hill;

THENCE running in a Northwesterly direction 150 yards to a certain tree located in the center of an old field;

THENCE running 100 yards across field in a Southwesterly direction to the PLACE OF BEGINNING.

CONTAINING approximately three (3) acres more or less.

AS conveyed by Thomas Carty et ux to Harvey L. Denton by Deed dated 29 May, 1944 and recorded at the Registry of Deeds in Book 162 on December 13, 1944.

LOT NO. 2 ALL that certain block of land situated on the North side of Little River and bounded as follows:

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THENCE continuing in the same Northerly direction to lands owned by the late Samuel Gidney, a distance of 25 rods, more or less;

THENCE in a Westerly direction along the lands of the late Samuel Gidney down to the Bay of Fundy Shore to a spot known as the Rockweed Hole;

THENCE running along the Bay of Fundy Shore in a Southerly direction a distance of one mile, more or less to land owned by George Addington;

THENCE running Easterly along said lands of George Addington to the POINT OF BEGINNING.

COMPRISING in all, 250 acres more or less.

AS conveyed by Thomas Carty et ux to Harvey L. Denton by Deed dated 7 January, 1946 and recorded at the Registry of Deeds in Book 165, page 84 on April 3, 1946.

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THENCE along Bay of Fundy shore in a Westerly direction for a distance of 40 rods more or less, to the lands of Reginald Trask;

THENCE along lands of Reginald Trask in a Southerly direction for a distance of 200 rods, more or less;

THENCE along lands belonging to Wilbert Denton (the said Wilbert Denton's land being bounded by certain set on the brow of the mountain) in an Easterly direction a distance of 40 rods more or less, to the POINT OF BEGINNING.

THE above described lot of land CONTAINING 97 acres more or less.

AS conveyed by George Addington et ux to Harvey L. Denton by Deed dated 17 May, 1947.

Appendix C

Typical Blast Design

Bench height: 50'
Hole diameter: 6.5"
Burden: 14'
Spacing: 14'
Hole Depth: 55'
Sub drill: 5'
Number of holes: 68
Tonnes of rock: 49334

Explosives

Type: Magnafrac 1161

Total quantity: 25036 Kgs. / (55079 lbs.)

Maximum per delay: 368 Kgs. / (809 lbs)

Collar: 10'

Stemming: Stone

Primers: Pentax D-12

Detonators: Handidet
Non-el

Appendix D

Design Parameters for Wash Ponds

Test crush data:

% passing #200 sieve = 0.7%

S.G. of material = 2.9

Pond Criteria:

Design time of retention = 11/2 hours (see high S.G.)

Area = 1.2 acres.

Runoff coefficient = 0.20

Design storm = 10 year.

Q rainfall = 1.08 cfs.

Q wash water = 0.2 cfs.

Total Q = 1.28 cfs.

Volume of water = 6,912 cf.

Pond depth = 6.5'

Pond dimension = 80' x 35' (top).

Pond volume = 11,752 cf.

Maximum sediment volume = 4,840 cf. (approx 3.5')

Appendix E

Design Parameters for Settling Pond

To meet the following liquid effluent levels:

Total Suspended solids:

Maximum in a grab sample = 50 mg/l

Monthly arithmetic mean = 25 mg/l

pH:

Maximum in a grab sample = 5 - 9

Monthly arithmetic mean = 6 - 9

Area = 8.4 acres

Runoff coefficient, weighted average = 0.576

Time of concentration = 120 minutes

Design storm = 10 years

Rainfall intensity factor = 4.5 in/hour

Q (Rational Method) = 21.77 cfs

Design time of retention = 1 hour.

Retained volume = 78,372 cf

Minimum required sediment volume = 1,800 cf/acre.

Minimum sediment volume = 15,120 cf.

Total volume 93,492 cf.

Design dimensions: 220' x 110' (top dimensions) x 6.5'.

Design volume 131,612 cf (this allows for increased sediment storage).