

SAND AND GRANITE QUARRIES ACT
(CHAPTER 284, SECTION 24)
SAND AND GRANITE QUARRIES REGULATIONS

Rg 1

G.N. No. S 129/1974

REVISED EDITION 2001
(31st January 2001)

[26th April 1974]

Citation

1. These Regulations may be cited as the Sand and Granite Quarries Regulations.

Application for licence

2.

—(1) Every person who desires to apply for a licence shall submit a written application to the Licensing Officer in such form as the Licensing Officer may direct.

(2) The applicant shall, when required to do so, furnish the Licensing Officer with such further information as the Licensing Officer may require.

Plan of sand or granite quarry

3.

—(1) Every application submitted under regulation 2 shall be signed by the applicant and shall be accompanied by 3 copies of a plan containing the following particulars:

(a)

the sand or granite quarry, showing all salient features of the land and the extent of a comprehensive topographical survey of the land on which it is proposed to operate the proposed sand or granite quarry;

(b)

the siting of pumps, crusher plant or other mechanical apparatus for the sand washing or quarry operation;

(c)

the siting of silting ponds to be used as silt traps and the type and mode of drainage from such silting ponds to any existing stream, canal or drain; and

(d)

such other particulars as the Licensing Officer may require.

(2) The plan referred to in paragraph (1) shall indicate, in the case of a sand quarry, that provision has been made for at least 2 silting ponds to be used as silt traps of a size consistent, in the opinion of the Licensing Officer, with the capacity of the pumps or other mechanical apparatus to be used.

(3) A copy of the plan when approved by the Licensing Officer shall be returned to the licensee.

Directions of Licensing Officer

4. Every licensee shall —

(a) comply with any written direction which the Licensing Officer may from time to time see fit to give to ensure the efficient and satisfactory operation of the sand or granite quarry; and

(b) within such time as may be specified by the Licensing Officer in such written direction, amend accordingly the copies of the plan required to be submitted under regulation 3.

Security deposit

5. If the Licensing Officer requires a security deposit to be furnished by a licensee the amount of such security deposit shall be as follows:

(a) in the case of a sand quarry —		
(i) for any sand quarry not using motive power		\$200
(ii) for any sand quarry using motive power up to an aggregate of 7.5 kw		\$300
(iii) for any sand quarry using motive power up to an aggregate of 15 kw		\$500
(iv) for any sand quarry using motive power up to an aggregate above 15 kw		\$1,000
(b) in the case of a granite quarry		\$10,000.

Fees

6. The fee payable for the issue or renewal of a licence in respect of —

(a) a sand quarry shall be \$4,260 per annum; and

(b) a granite quarry shall be \$10,800 per annum.

Renewal of licence

7.

—(1) A licensee who wishes to renew his licence shall submit a written application to the Licensing Officer in such form as the Licensing Officer may direct.

(2) Every such application for the renewal of a licence shall be accompanied by —

(a) a statement to the effect that the sand or granite quarry remains unchanged in respect of every particular contained in the original application and approved plan; or

(b)

a statement giving particulars of any proposed change to the sand or granite quarry.

Alteration of quarry in approved plan

8.

—(1) A licensee intending to alter in any way the sand or granite quarry as represented in the approved plan lodged with the Licensing Officer shall apply in writing to the Licensing Officer setting out the proposed alterations enclosing 2 copies of the plan indicating the alterations.

(2) A licensee shall not carry out any work to effect the proposed alterations unless the approval of the Licensing Officer has been given.

(3) Any licensee who carries out any alterations to the sand or granite quarry as represented in the approved plan without the prior approval of the Licensing Officer shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

Assessment of damage

9.

—(1) The Licensing Officer may, with the assistance of such public officers as he considers necessary, assess the damage or interference caused, directly or indirectly —

(a) to any adjoining or surrounding land or property, including damage to or loss of any livestock or poultry thereon; or

(b) to the normal agricultural pursuits of the persons occupying the land or property, which is attributable to the operation of the sand or granite quarry and to direct the licensee thereof to compensate any person adversely affected by such operation.

(2) In the event of any dispute arising as to the question or amount of compensation, the dispute shall be referred to a committee composed of 3 persons who shall be appointed by the Minister.

(3) The decision of the committee shall be final and binding on the licensee.

(4) Where any amount is due from any licensee under this regulation by way of compensation, the Licensing Officer may utilise the whole or part of the security deposit paid by the licensee under regulation 5 to meet the payment of the compensation.

(5) Any licensee who fails to pay such compensation as may be directed by the Licensing Officer or as may be determined by the committee under this regulation shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$500.

(6) Nothing in this regulation shall prevent the bringing of any suit in any court for damages or compensation arising out of the operations of any sand or granite quarry.

(7) No suit shall be maintainable by any person against the licensee of a sand or granite quarry in respect of any damage to property if he has recovered damages or compensation under this regulation from the licensee in respect of the damage.

Clearing of quarry waste

10. The licensee of a sand quarry shall, as and when directed by the Licensing Officer, maintain and desilt any canal or stream caused by indiscriminate and unauthorised discharge of quarry waste from the operation of the sand quarry.

Disposal of silt

11. The licensee of a sand quarry shall ensure that —

- (a) each silting pond is provided with an overflow weir which shall be of permanent construction and set at half a metre below the top of the bund of such pond;
- (b) all the silt from any sand washing operation shall flow into the silting ponds referred to in regulation 3 and is not carried into any existing stream, canal or drain; and
- (c) when each silting pond is full, another silting pond shall be used and arrangements made for the removal of the silt from the full silting pond to a suitable place approved by the Licensing Officer.

Explosives for granite quarries

12. The licensee of a granite quarry shall ensure that —

- (a) explosives used for charging holes are those approved by the Arms and Explosives Branch of the Singapore Police Force and the explosion is initiated by a combination of safety fuse, cord, detonating cordtex and detonators approved by that Branch;
- (b) at least a minimum of one metre of fuse shall be outside each hole, and, if the number of holes to be fixed at any one time is more than 20, prior approval of the Licensing Officer in writing shall be obtained; and
- (c) all material brought down or blown out after blasting shall be carefully examined for any cartridges or pieces of cartridges which have remained unexploded and shall be removed.

Conduct of employees and other persons

13.

—(1) Every licensee shall ensure that all employees or other persons in or about a quarry including the manager, supervisors, officials and office staff shall refrain from —

- (a) wilfully damaging or removing or rendering useless any notice or copy of these Regulations, or any plant, vehicle, machinery, building or thing provided in a quarry; or
- (b)

interfering with any arrangements in or about a quarry provided for the safety, health or convenience of employees, unless duly authorised by the person in charge.

(2) Every licensee shall ensure that every employee —

(a)
does not delegate his work to another person without the permission of the person in charge;

(b)
shall, when engaged in working or loading stone, carefully examine his working place and immediately report any apparently dangerous condition to the person in charge;

(c)
shall, after any shot has been fired, remove or cause to be removed any loose material which may be dangerous;

(d)
shall, if injured and able to do so, report the accident to the person in charge before leaving the quarry;

(e)
shall not throw down any material or tool in a manner which may cause injury or danger to another person;

(f)
shall not remain underneath anything suspended from any lifting appliance or lifting machine;

(g)
shall not ride on any conveyer;

(h)
shall use blasting shelters when blasting occurs within range of his working place;

(i)
shall, when engaged on the wall or face of the quarry, continually use a safety rope, securely fastened above the working place;

(j)
shall wear a safety helmet of a type tested and approved by the Singapore Productivity and Standards Board; and

(k)
shall not enter, nor remain in or about, the quarry whilst under the influence of intoxicating liquor or drugs and shall not take intoxicating liquor or drugs into the quarry except in the case of illness or accident and with the consent of the manager.

Safety appliances

14.

—(1) Every licensee shall ensure that no employee shall —

(a)
descend into any bin, hopper or stockpile cavity without attaching himself to a properly secured safety rope by means of a safety belt or other appliance approved by the Licensing Officer; or

(b)
use any such appliance which he considers to be unsafe.

(2) While in a bin, hopper or stockpile cavity, the employee shall be constantly attended by a second person who shall ensure that the safety rope is properly secured and that there is no unnecessary slack rope.

Machinery safety

15. Every licensee shall ensure that no employee shall —
- (a) get on or off any moving machinery plant or vehicle;
 - (b) clean any machinery which is in motion;
 - (c) oil or grease any machinery which is in motion unless provision is made for safe application; and
 - (d) put any belt on or off a pulley which is in motion except by a safe mechanical device.

Unauthorised entry

16. Every licensee shall ensure that employees shall not enter sub-stations, motor rooms, switch rooms, control galleries, or other prohibited areas indicated by warning lights or notices, unless authorised by the person in charge of such an area.

Age limit of employees

17. Every licensee shall ensure that persons employed in a quarry are not less than 18 years of age.

Safety of surroundings of excavations, etc.

- 18.
- (1) Every licensee shall ensure that —
 - (a) the slopes of walls and faces of excavations shall not exceed safe limits for stability;
 - (b) where the Licensing Officer is of the opinion that the wall or face of an excavation or the slope of an embankment is unstable, he shall order the employees to be withdrawn from the vicinity thereof, and shall issue such instructions as he considers necessary to reduce risk of injury to the employees or the public or damage to public or private property arising therefrom;
 - (c) where the Licensing Officer is satisfied that the slopes of the operating faces, or the terminating walls of any excavation as proposed by the licensee in the working plans or developed in the course of excavating, exceed safe limits for stability, he shall issue such instructions as he may consider necessary to the licensee regarding safe slopes.

(2) The slopes so determined under paragraph (1)(c) shall be incorporated in the plan and the licensee shall be so notified in writing.

No overhang of face or wall

19. Every licensee shall ensure that no part of any face or wall of an excavation shall overhang.

Notice to cease work

20. The Licensing Officer may serve notice requiring the licensee to cease work on a face of an excavation if he considers that the work threatens the safety of persons engaged in the work or any other person.

Safe travelling ways

21. Every licensee shall provide secure and safe travelling ways for employees to move to and from their working places.

Notice to work in benches

22.

—(1) The Licensing Officer may give notice requiring the excavation to be worked in benches.

(2) The width of every bench shall be at least half the height of face and where mechanical loading or transport is employed on the bench, the width shall be sufficient to safely operate the equipment.

Night work

23. The licensee shall ensure that any work carried out in a quarry at night shall be under the constant supervision of a competent person appointed by him and adequate lighting shall be provided.

No obstruction by plant, etc.

24. Every licensee shall ensure that all plant, machinery and buildings, dumps and stockpiles be located so as not to obstruct the view on roads at bends, corners and intersections.

Regulation of blasting operations

25.

—(1) Where in the opinion of the Licensing Officer any blasting may cause nuisance or damage to property, he shall issue a notice specifying —

the manner in which explosives shall be used;

(a)

(b)
the maximum quantity of explosives permitted to be detonated per hole or per time delay in primary and secondary blasting;

(c)
the total quantities and types of explosives to be used; and

(d)
the blasting times each day, and prohibited days for blasting,
together with such other restrictions or provision as he may consider necessary.

(2) No blasting shall be carried out —

(a)
on working days, between the hours of 6 p.m. and 8 a.m.; and

(b)
on Sundays and Public Holidays, except with the written permission of the Licensing Officer.

Precautions relating to blasting operations

26. Every licensee shall ensure that the following precautions are taken before, during and after blasting operations:

(a)
that barricades with red flags and warning notices in the 4 official languages are placed on all approaches to the blasting place and that all persons are out of the area;

(b)
that a series of 3 short audible signals is sounded;

(c)
that there is a pause for not less than 3 minutes, during which time the danger area shall be checked to ensure that all persons are in a position of safety;

(d)
that 2 short audible signals are sounded one minute before the commencement of the 10 second continuous audible signal;

(e)
that a 10 second continuous audible signal is sounded;

(f)
that the charge is fired on the tenth second; and

(g)
that the area is checked and found to be safe for return and one long audible signal is then sounded.

Fumes, dust, etc.

27. Every licensee shall ensure that no person shall approach any place in which blasting has taken place until fumes, dust or toxic gases have dispersed to safe limits.

Thunderstorms

28.

—(1) Every licensee shall ensure that on the approach of a thunderstorm, all persons are withdrawn to a safe distance from the vicinity of explosives whether contained in magazines, shot holes, containers in the course of transport, or wherever located.

(2) If, in the opinion of the person in charge, the conditions permit, loose explosives shall be placed in their containers and returned to the nearest magazine.

Prohibited persons

29. Every licensee shall ensure that no person under the influence of intoxicating liquor or drugs conducts any blasting operation, handles any explosives or enters a magazine.

Cleanliness

30. Every licensee shall ensure that all employees who handle explosives wash their hands after handling the explosives.

Storage of explosives in magazines

31. Where the quantities of explosives stored exceed the specified amounts the licensee shall provide an additional magazine or magazines as required.

Dust extraction plants

32.

—(1) Every licensee of a quarry shall install dust extraction plants therein to ensure that the dust concentration in the surrounding air of the quarry or any part thereof is maintained within reasonable limits so as not to affect the health of any person working therein or be a nuisance to occupants of adjoining or neighbouring land or property.

(2) The Licensing Officer may take samples of the dust concentration in order to assess whether it is injurious to health.

Licensee to provide dust masks, etc.

33. Every licensee of a quarry shall provide dust masks, helmets, gloves, safety goggles, safety shoes and such other protective equipment as may be necessary to persons working in the quarry.

Duties of licensees

34. No licensee of a granite quarry shall allow a person to work therein unless such person —

is free from a pulmonary disease; or (a)

has taken a full-size X-ray examination of his chest and has been certified fit for the work by a registered medical practitioner approved for the purpose by the Licensing Officer. (b)

X-ray and medical examination

35.

—(1) Every person employed in a granite quarry shall submit to a medical examination including a full-size X-ray examination of his chest at least once a year and the expenses thereof shall be borne by the licensee of the quarry.

(2) The Licensing Officer may at any time order a person, who is employed in a granite quarry and is suspected of having contracted a pulmonary disease, to submit himself to a medical examination.

(3) A person to whom an order under paragraph (2) is directed shall submit himself to a medical examination; and the licensee of the quarry in which that person is employed shall pay for the medical examination and shall grant that person leave of absence from work with pay for the purpose of submitting himself to the medical examination.

(4) A medical examination provided under this regulation to a person who is employed in a granite quarry shall be carried out by a registered medical practitioner approved for the purpose by the Licensing Officer.

(5) A record of the medical examination shall be kept by the licensee of the quarry in a register which is to be kept in a form and manner approved by the Licensing Officer.

(6) Every licensee of a quarry shall notify the Licensing Officer of any accident occurring in the quarry within 48 hours of its occurrence and of any pulmonary disease contracted by a person who is employed to work in the quarry and shall furnish the Licensing Officer with the personal particulars of that person together with such other particulars relating to the quarry as the Licensing Officer may require.

Register of persons employed

36. Every licensee of a quarry shall —

keep a register of all persons who are employed to work therein; and (a)

produce the register for inspection when required to do so by the Licensing Officer. (b)

Application of Factories Act

37. The licensee and his employees shall comply with the provisions of the Factories Act (Cap. 104) and the regulations made thereunder which are applicable to them.

Offence and penalty

38. Every omission or neglect to comply with and every act done or attempted to be done contrary to these Regulations shall be an offence and in respect of such offence for which no penalty is expressly provided the offender shall be liable on conviction to a fine not exceeding \$1,000 and, in the case of a continuing offence, to a further fine not exceeding \$50 for every day or part thereof during which the offence continues after conviction.

[G.N. Nos. S 129/74; S 284/75; S 266/78; S 216/83; S 72/85; S 362/88; S136/90; S 183/91; S 140/96; S 99/98]

LEGISLATIVE HISTORY

SAND AND GRANITE QUARRIES REGULATIONS (CHAPTER 284, RG 1)

This Legislative History is provided for the convenience of users of the Sand and Granite Quarries Regulations. It is not part of these Regulations.

1. **G. N. No. S 284/1975—Sand and Granite Quarries Regulations 1975**
Date of commencement : Date not available
2. **G. N. No. S 266/1978**
Date of commencement : Date not available
3. **G. N. No. S 216/1983**
Date of commencement : Date not available
4. **G. N. No. S 72/1985**
Date of commencement : Date not available
5. **G. N. No. S 362/1988**
Date of commencement : Date not available
6. **G. N. No. S 136/1990**
Date of commencement : Date not available
7. **G. N. No. S 183/1991**
Date of commencement : Date not available
8. **1974 Revised Edition—Sand and Granite Quarries Regulations**
Date of operation : 25 March 1992
9. **G. N. No. S 140/1996—Sand and Granite Quarries (Amendment) Regulations 1996**
Date of commencement : 1 April 1996
10. **G. N. No. S 99/1998—Sand and Granite Quarries (Amendment) Regulations 1998**
Date of commencement : 1 April 1998
11. **G. N. No. S 129/1974—Sand and Granite Quarries Regulations 1974**
Date of commencement : 31 January 2001
12. **2001 Revised Edition—Sand and Granite Quarries Regulations**
Date of operation : 31 January 2001
13. **1990 Revised Edition—Sand and Granite Quarries Regulations 1990**
Date of operation : Date not available.