

# KAHNAWÁ:KE QUARRY LAW

K.R.L. c. Q-1

[Enacted by SOR/80-767 on 29 Seskeha/ August, 1980]

*Preamble*

WHEREAS this is a By-Law to make provision for the regulation of the operation of quarries on the Kahnawá:ke Indian Reserve at Kahnawá:ke and for the implementation of adequate environmental controls by the operators of those quarries.

WHEREAS The Mohawk Council of Kahnawá:ke is empowered under Section 81(a) of the Indian Act to provide for the health of residents on the reserve, and under Section 81(c) to provide for the prevention of nuisances.

AND WHEREAS For all intents and purposes this by-law may be cited as the Mohawk Council of Kahnawá:ke Quarry Environmental Control By-Law No. 1, 1980.

NOW THEREFORE, the Council of Kahnawá:ke in open meeting assembled enacts as follows;

## SECTION I

### 1. PURPOSE

*"Purpose"*

- 1.1 Council feels that the environmental pollution caused by the operation of quarries on the reserve are hazardous to the health of residents and cause an unnecessary nuisance on the reserve due to their manner of operations and desire to bring that operation under clear, concise environmental controls.

## SECTION II

### 2. POLLUTION CONTROL REQUIREMENTS

*"Pollution Control Requirements"*

- 2.1 An operator of a pit or quarry on the reserve shall conform immediately with the following requirements:

#### A. Water Pollution Control

- (1) Concentration of Contaminants: The water discharged into the environment through the operation of a pit or quarry by a crushing or screening process must not contain a concentration of contaminants in excess of:

(a) 15 mg/l of oil, grease, tar of a mineral origin

or

(b) 25 mg/l of suspended matter.

(2) ph: The ph of water discharged into the environment through the operation of a pit or quarry or by a crushing or screening process must be between 5.5 and 9.5.

(3) Methods of Analysis: The analysis required to ensure the application of Sections 22 and 23 shall be performed in accordance with the following methods described in the 14<sup>th</sup> Edition (1975) of the Standard Methods for the Examination of Water and Waste Water published jointly by the American Public Health Association, the American Water Works Association and the Water Pollution Control Federation:

(a) oil and grease shall be determined according to the provisions of the method of Section 502A entitled Partition - Gravimetric Method or by the method in Section 502B entitled; Partition - Infrared Method (Tentative);

(b) suspended matter shall be determined according to the provisions of the method in Section 208D entitled Total Non-filtrable Residue Dried at 103-105C Total Suspended Matter);

(c) pH shall be determined according to the method in Section 424 entitled pH Value.

#### B. Air Pollution Control

(1) Emission Standards: Crushers, dryers, elevators or screens used in a quarry must be individually or collectively confined in an enclosed space and equipped with exhaust ducts leading to one or several dust collectors in such a way that particulate matter is not emitted in concentrations exceeding 50 mg/m<sup>3</sup> and in such a way that the total emission of particulate matter from all equipment complies with the standards prescribed in Schedule "A".

The section shall apply mutates mutandis to the conveyors used in a quarry to transport the aggregate material the granulometry of which falls below number 4 according to the method of determination entitled: Test Sieves: Woven Metal Cloth, Perforated Plate - Nominal Sizes of Aperatures, published by the Bureau de Normalisation du Québec,

publications number BNQ 1530-360-1976. This also applies to the feeding and dumping points of aggregate material from all the crushers, dryers, elevators, conveyors and screens independent of the granulometry of the aggregate material, except for the transfer or the fall of aggregate material from a conveyor to an open air stockpile. Aggregate material is defined as any matter of a mineral nature extracted from a pit or quarry.

- (2) Transfer points: In a case where the transfer or the free fall of aggregate material from a conveyor to an open air stockpile or from a bin to a truck in a quarry entails the emission of dust visible more than 2 meters from the source of emission, the operator must take the required measures to ensure that:
  - (a) these transfer points be confined to an enclosed space and equipped with exhaust ducts for dust in the manner indicated in (1) above;
  - (b) the height of the free fall of the aggregate material deposited by mobile loaders, trucks, or conveyors is less than 2 meters.
- (3) Sampling Method: The sampling method for particular matter emission used for the purpose of applying Sections (1), (3) and (7) is that published by Environment Canada, Standard Reference Methods for Source Testing: Measurement of Emissions of Particulates from Stationary Sources, numbered EPS-1AP-74-1.
- (4) Pits: Section (1), (2) and (3) shall not apply to crushing or screening equipment for the treatment of aggregate material from pits.
- (5) Obligation: Any equipment used or installed in a pit or quarry for the purpose of reducing or preventing the emission of the contaminants into the environment shall at all times be in working condition and shall operate at optimum efficiency during the production hours of the plant, even if this equipment causes a reduction in the emission of contaminants that is well within these standards.
- (6) Secondary Sources of Contamination: Where the emissions of dust from access roads, parking areas, traffic zones or piles of aggregate material from a pit or quarry produce one or other of the effects enumerated in fine in the second paragraph of Section 20 of the Environment Quality Act, S.Q. C.49, the operator must take the required measures to prevent such emissions in order to cause such effects to disappear.
- (7) Drilling: Dust emission from drilling operations carried out in a quarry must be controlled by the installation of a dust collecting apparatus linked

- (8) to a dust collector system allowing not more than 50 mg/m<sup>3</sup> of particulate matter to be emitted into the atmosphere.
- (9) **Recuperated Dust:** Dust recuperated by dust collector systems must be handled and transported in such a way that there will be no loss into the atmosphere visible more than 2 meters from the source of emission. Where such dust is not recycled, it must be stored, deposited or eliminated on the ground, provided the required measures are taken to prevent any issuance of dust into the atmosphere visible more than 2 metes from the source of emission.

### SECTION III

"Penalties"

#### 3. PENALTIES

- 3.1 Every person who offends any of the provisions of this By-Law, or who suffers or permits any act or thing to be done in contravention or violation of any provisions of this By-Law, or does any act or thing which violates any of the provisions of this By-Law, shall be deemed to have committed an offence under this By-Law and shall be liable on conviction, to a fine or penalty of not more than \$100.00 or imprisonment for a term not exceeding thirty days, or both, pursuant to Section 81(r) of the Indian Act.

SCHEDULE A

EMISSION STANDARDS FOR EQUIPMENT USED IN A QUARRY  
(Particulate matters)

Production rate (metric tons/hr)	Standards of emission (kg/hr)
30,0	13,7
32,5	13,9
35,0	14,0
37,5	14,2
40,0	14,3
42,5	14,5
45,0	14,6
47,5	14,8
50,0	14,9
52,5	15,0
55,0	15,1
57,5	15,0
60,0	15,3
62,5	15,4
65,0	15,5
67,5	15,6
70,0	15,7
72,5	15,8
75,0	15,9
77,5	16,0
80,0	16,0
82,5	16,1
85,0	16,2
87,5	16,3
90,0	16,3
92,5	16,4
95,0	16,5
97,5	16,6
100,0	16,6
125,0	17,2
150,0	17,2
175,0	18,2
200,0	18,6
225,0	18,9
250,0	19,3
275,0	19,6
300,0	19,8
325,0	20,1
350,0	20,3
375,0	20,5
400,0	20,8
425,0	20,3
450,0	21,2
	21,3
	21,5

SCHEDULE B  
SCALE FOR THE MEASUREMENT  
OF THE OPACITY OF DUST EMISSION  
INTO THE ATMOSPHERE

MICRO-RINGELMANN SCALE  
Environment Protection Services  
GOVERNMENT OF QUEBEC

Instructions

1. Select an observation point situated at more than 30 metres and less than 400 meters from the source of emission.
2. Avoid looking towards bright sunlight and select an observation angle free of dark objects in the background.
3. Hold the chart at arm's length and look at the emission through the slit.
4. Record the scale number best corresponding to the opacity of the emission, including a 0 number corresponding to white on white.
5. To calculate the opacity of an emission, record shades of opacity from the scale and use the following formula:

$$P = \frac{\text{NUE at opacity no. 1} \times 20\%}{\text{the number of observations}}$$

where P represents the percentage opacity of the emission and NUE the number of equivalent units.

The number on each numbered shade represents a comparable number of equivalent units.