

Appendices

Appendix A

Environmental Compliance Approval

Ministry of
Environment
and Energy

Ministère de
l'Environnement
et de l'Énergie

250 Davisville Avenue
Toronto ON M4S 1H2

250, avenue Davisville
Toronto ON M4S 1H2

APPROVALS BRANCH

Phone: (416) 440-3544

Fax: (416) 440-6973

September 6, 1996

Mr. John Fisher, General Manager
Taro Aggregates Limited
65 Green Mountain Road
Stoney Creek, Ontario
L8J 1X5

Dear John:

Re: Provisional Certificate of Approval No. A 181008
Taro East Quarry Landfill Site

Please find enclosed with this letter your Provisional Certificate of Approval for the above waste disposal site dated September 6, 1996. This Provisional Certificate of Approval is for the use and operation of the Taro East Quarry Landfill Site.

It should be noted that this certificate of approval is subject to 89 conditions. You are urged to carefully review all of the terms and conditions of this certificate.

In addition, it should be noted that financial assurance in the amount of eight million nine hundred and thirty thousand five hundred and twelve dollars (\$8,930,512) is required to be submitted to the Ministry within sixty (60) days of the issuance of this certificate.

Please note that should you wish to alter the terms of operation of the aforementioned certificate, you are required by legislation to submit an application for approval to the Director.

Should you have any questions or comments concerning the above, please feel free to contact Mr. John Kaasalainen of this office at (416) 440-7032.

Sincerely,



A. Dominski, P.Eng.
Supervisor, Waste Unit

Encl.
JAK/jk

cc: Hardy Wong,
John Percy,
Ian Neville,

Harry Dahme,

MOEE West Central Region
MOEE Hamilton District Office
City of Stoney Creek
777 Highway No. 8, Box 9940
Stoney Creek, Ontario, L8G 4N9
Gowlings, Strathy & Henderson
Suite 4900, Commerce Court West
Toronto, Ontario, M5L 1J3



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*PROVISIONAL CERTIFICATE OF APPROVAL
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Under the Environmental Protection Act and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval, No. A 181008, is issued to:

Taro Aggregates Ltd.
65 Green Mountain Road
Stoney Creek, Ontario
L8J 1X5

for the use and operation of a 59.1 ha (146 acres) landfill site within a total site area of 75.1 ha (185.5 acres)

all in accordance with the following plans and specifications:

As per the attached Schedule "A"

Located: Taro East Quarry Landfill
Part of Lots 25 and 26
Concession 6
City of Stoney Creek
Regional Municipality of Hamilton-Wentworth

which includes the use of the site only for the disposal of the following categories of waste (Note: Use of the site for additional categories of wastes requires a new application and amendments to the Provisional Certificate of Approval) solid non-hazardous commercial, institutional and industrial waste

and subject to the following conditions:

DEFINITIONS

1 For the purpose of this Certificate of Approval, unless the contrary intention appears, the following words and phrases shall have the following meaning attributed to them:

1.1 "Adverse Effect" is as defined in the Environmental Protection Act, R.S.O. 1990.



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- 1.2 "Best Management Practices" means an approach to managing water quality as described in the June 1991 provincial document entitled "Storm Water Quality Best Management Practices" and MOEE "Interim Storm Water Quality Guidelines for New Development", May 1991, as amended.
- 1.3 "Buffer" means those lands and easements as shown in Figure 3 of Item No. 2 of Schedule "A".
- 1.4 "Certificate" means this Provisional Certificate of Approval No. A 181008, as amended from time to time, including all schedules attached to and forming part of this Certificate.
- 1.5 "City" means the Corporation of the City of Stoney Creek.
- 1.6 "CLC" means the Taro East Quarry Site Community Liaison Committee.
- 1.7 "Commercial" means a place of business or facilities where merchandise or services can be exchanged by the general public, including hotels, retail stores, services shops and premises, public service amusements and small workshops, and offices, including government offices and administrative offices of an institution where such offices are located beyond the area where the services of the institution are primarily delivered.
- 1.8 "Company" means Taro Aggregates Limited.
- 1.9 "Crown" means Her Majesty the Queen in Right of Ontario.
- 1.10 "Director" means the one or more persons who from time to time are so designated for the purpose of Part V of the Environmental Protection Act.
- 1.11 "District Manager" means the District Manager of the Ministry's Hamilton District Office.
- 1.12 "EPA" means the Environmental Protection Act, R.S.O. 1990, Chapter E.19, as amended.
- 1.13 "Institutional" means facilities and services provided for the use of the public or particular segments of the public on a non profit basis, whether provided directly or indirectly by government, charitable, community, non-profit or other social agencies, and including such uses as, hospitals, post-secondary educational facilities, major public art galleries, museums and libraries, and any office associated with such uses.



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- 1.14 "Major Works" means all aspects of the leachate, ground water and surface water management system; erosion control and landfill gas control systems; landfill liner and hydraulic containment systems.
- 1.15 "Ministry" means the Ministry of Environment and Energy.
- 1.16 "MOEE" means the Ontario Ministry of Environment and Energy.
- 1.17 "ODWO" means the Ontario Drinking Water Objectives.
- 1.18 "OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c.0.40, as amended.
- 1.19 "Putrescible" means material that undergoes decomposition, typically organic wastes (i.e. food or kitchen type wastes), but does not include material within which decomposition is incidental.
- 1.20 "PWQO" means the Provincial Water Quality Objectives.
- 1.21 "Regional Director" means the Director of West Central Region, Ministry of Environment and Energy.
- 1.22 "Reasonable Use Guideline" means the MOEE Guideline B-7 (formerly Policy 15-08) entitled "Incorporation of the Reasonable Use Concept into MOEE Groundwater Management Activities", dated April 1994, as amended.
- 1.23 "Site" means the entire waste disposal site including the landfilling area and the buffer lands as shown on Figure No. 3 of Item No. 2 as listed in Schedule "A" of this Certificate of Approval.
- 1.24 "Storm Water Management Practices" means an approach to managing water quality as described in the provincial document entitled "Storm Water Management Practices Planning and Design Manual", June 1994 as amended.
- 1.25 "Supporting Documentation" refers to the reports listed in Schedule "A" of this Certificate of Approval.



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GENERAL

- 2 Schedules "A" through "H" form part of this Certificate.
- 3 Notification
 - 3.1 The Company shall notify the Director, in writing, of any of the following changes within thirty (30) days of the occurrence of the change:
 - a) change of owner or operator of the Site or both;
 - b) change of address or address of new owner;
 - c) change of name of the Company or any change of business name or style; and
 - d) change of directors or officers of the Company.
 - 3.2 The Notification shall include a copy of the most current "Initial Notice or Notice of Change" filed under the Corporations Information Act, R.S.O. 1990, as amended from time to time, or if that Act is not applicable, a copy of the most recent registration under the Business Names Act, R.S.O. 1990, as amended from time to time.
 - 3.3 In the event of any change in ownership of the Site, the Company shall notify in writing the succeeding owner of the existence of this Certificate, and a copy of such notice shall be forwarded to the Director.
- 4 The Company shall ensure that all communication made pursuant to this Certificate will refer to this Certificate No. A 181008.
- 5 The requirements of this Certificate are severable. If any requirement of this Certificate, or the application of any requirement of this Certificate, to any circumstances, is held invalid, the application of such requirement to other circumstances and the remainder of this Certificate shall not be affected thereby.
- 6 The Company shall allow provincial officers, upon presentation of credentials, to:
 - a) carry out any and all inspections authorized by the Environmental Protection Act, R.S.O. 1990, the Ontario Water Resources Act, R.S.O. 1990, or the Pesticides Act, R.S.O. 1990, as amended from time to time, of any place to which this Certificate relates, and without restricting the generality of the foregoing, to:
 - i) enter upon the premises or the location where the records required by the conditions of this Certificate are kept;



- ii) have access to and copy, at any reasonable time, any records required by the conditions of this Certificate;
- iii) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations required by the conditions of this Certificate, and
- iv) sample and monitor, at reasonable times, for the purposes of assuring compliance with the conditions of this Certificate.

7 The requirements specified in this Certificate are minimum requirements and do not abrogate the need for the Company to take all reasonable steps to avoid violating the provisions of all other applicable legislation.

REGISTRATION ON TITLE

8 Prior to the receipt of any waste at the Site, this Certificate of Approval or a certified true copy of this Certificate, including the reasons for these conditions, shall be registered by the Company as an Instrument in the appropriate Land Registry Office against the title of the Site, including all buffer lands, and a duplicate registered copy thereof shall be submitted to the Director.

DESIGN

9 The Site shall be designed, developed and operated in accordance with the Terms and Conditions, herein, and the items listed in the attached Schedule "A". Should there be any discrepancies between the Schedule "A" items and the Conditions of this Certificate, the Conditions shall take precedence.

10 Waste shall only be landfilled within the limits of fill as shown in Figure No. 3, "Base Grading Plan", of Item No. 2 of Schedule "A". No waste shall be disposed of within the buffer lands.

11 A minimum buffer area width of 30 m shall be maintained around the perimeter of the approved fill area. To minimize erosion, the buffer shall be maintained with healthy vegetative cover and/or other appropriate surface treatment.



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- 12 Prior to acceptance of any waste at the Site, screening berms shall be constructed in accordance with the Visual Impact Assessment Report, Item No. 10 of the attached Schedule "A", and shall be vegetated. A Landscape Plan for the buffer area shall be designed in consultation with the City and the CLC and shall be submitted to the Director for approval within six months of issuance of this Certificate. The details of the Landscape Plan shall be incorporated into a Site Plan agreement with the City.
- 12.1 The Landscape Plan shall include: drawings, specifications and schedules for landscaping of the Buffer area, as well as types and locations of tree and shrub plantings between the property boundaries and the perimeter berms. Where views from surrounding residences to the operational areas of the Site are expected above the berms, additional tree and shrub planting shall be required on the perimeter berms in those specific locations. These materials shall be planted to effectively screen these operational areas from views from surrounding residences.
- 13 Final detailed design of Major Works to be constructed at the Site shall be submitted to the Director and approved, prior to the beginning of construction of such works.
- 14 The final detailed design must follow the conceptual design framework presented in Item 2, Schedule "A". Any design optimization or modification shall be clearly identified, along with an explanation of the reasons for the change. The plans and specifications pertaining to the final detailed design and operations of the landfill shall include the following:
- 14.1 Specifications and a detailed quality assurance/quality control program for construction of the Major Works, and provisions for quality assurance procedures, with respect to the liner, to be undertaken by an independent third-party consulting firm experienced in liner construction, reporting to the Ministry.
- 14.2 Details on the monitoring, maintenance, repair and replacement of the engineered components of the leachate containment and collection system shall be included in the Maintenance and Operations Manual outlined in Condition 34.1.
- 14.3 The Company shall construct Major Works in accordance with the approved final detailed design and shall implement the quality assurance procedures as approved by the Director.



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- 14.4 No landfilling of wastes shall occur on any part of the liner until the Regional Director has received an inspection report from the independent third party referred to in condition 14.1, indicating that the part of the liner was constructed as required by this certificate. A copy of these inspection reports shall also be provided to the City and the CLC.
- 15 Liner Test Pad
- 15.1 A test pad for liner installation procedures shall be constructed in order to ensure that materials and methods of construction will produce a liner system that will meet the performance objectives.
- 15.2 This test pad shall be constructed and tested prior to the actual construction of the landfill liner system.
- 15.3 The results of the test pad testing shall be submitted to the Director for review.
- 16 Phase 1A of the Site shall be constructed in accordance with Item Nos. 11, 12, and 17 of the attached Schedule "A".
- 17 As-built drawings shall be available for inspection, on site, for all Major Works components.
- 18 On-site roads, not within the landfilling area itself, shall be paved with asphalt.
- 19 The Company shall place a sign which complies with local by-laws at the main entrance and exit to the Site which is legible from a distance not less than 25 m and on which is displayed in prominent letters the following information:
- a) the name of the Site;
 - b) the Certificate of Approval number under which the Site is operated;
 - c) the name of the operator;
 - d) the normal hours of operation;
 - e) a telephone number to which complaints may be directed; and
 - f) a 24-hour emergency telephone number.
- 20 The Company shall submit an application for approval under the OWRA for a surface/storm water management system. The application will be submitted following consultation with the City and CLC. The application shall be consistent with the Surface Water Impact Assessment Report, Item 4, Schedule A and shall comply with Best Management Practices and Storm Water Management Practices.



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CAPACITY

- 21 The maximum volume of waste and cover materials, excluding final cover, which may be disposed at the Site is 6,320,000 m³. The maximum tonnage of waste and cover materials, excluding final cover, which may be disposed at the Site is 10,000,000 tonnes.
- 22 The landfill Site final contours, including final cover, shall not exceed those outlined on Figure No. 6, "Final Contour Plan", of Item No. 2 of the Schedule "A".
- 23 The annual tonnage of approved waste received at the Site for final disposal shall not exceed 750,000 tonnes in any calendar year. The maximum daily tonnage of approved waste received at the Site for final disposal shall not exceed 8,000 tonnes.
- 24 The maximum number of waste vehicles depositing waste at the site shall not exceed 250 in any one operating day.

SERVICE AREA

- 25 Only wastes generated within the geographical boundaries of the Regional Municipality of Hamilton-Wentworth may be received for disposal at this Site. This includes materials originating outside of the Regional Municipality of Hamilton-Wentworth but which are processed within the Region.

WASTE TYPES

- 26 The waste to be received at the Site for final disposal is restricted to solid, non-hazardous commercial, institutional and industrial waste including petroleum contaminated soils.
- 27 No liquid industrial wastes, hazardous wastes, as defined under Regulation 347, or putrescible waste shall be disposed of in the waste disposal fill area of the Site. This includes: hazardous industrial wastes; hazardous waste chemicals; ignitable waste; corrosive waste; leachate toxic waste; acute hazardous waste chemicals or reactive waste; hauled sewage; domestic waste; incinerator ash resulting from the incineration of waste; and waste from the operation of a sewage works subject to the Ontario Water Resources Act where the works:
- i) is owned by a municipality;
 - ii) is owned by the Crown subject to an agreement with a municipality under the Ontario Water Resources Act; or
 - iii) receives only waste similar in character to the domestic sewage from a household.



LANDFILL OPERATIONS

- 28 The Company shall take appropriate remedial action if at any time an adverse effect is generated by the Site.
- 29 No waste shall be burned or incinerated at the Site.
- 30 Waste may be received at the Site between the hours of 7:00 a.m. and 5:00 p.m., Monday to Friday. Any adjustment of these hours shall only be made upon the written approval of the District Manager. The normal Site operating hours shall be 6:30 a.m. to 6:00 p.m. Monday to Friday. The Site shall be closed on weekends and statutory holidays. The initial Site construction of Cell 1A may proceed through extended operating hours.
- 31 During non-operating hours, the Site entrance and exit gates will be locked or otherwise secured against access by unauthorized persons.
- 32 The Company shall ensure that no queuing of waste vehicles will occur on public roadways.
- 33 The Company shall monitor the weight of waste received for disposal by use of weigh scales. Where weigh scales are temporarily out of operation for maintenance or repair, estimates of waste volumes and density shall be used to estimate the weight of waste received for disposal. The weigh scales shall be installed prior to receiving of any waste. The weigh scale shall be recalibrated on an annual basis.
- 34 Maintenance and Operation Manual
- 34.1 The Company shall submit to the Regional Director for approval, following consultation with the CLC and the City, a Maintenance and Operations Manual for the Site within 180 days of receipt of this Certificate of Approval. This manual shall include the day-to-day operations and responsibilities for the following: leachate containment system treatment, operation and management; landfill gas control; interim and final cover maintenance; liner and hydraulic containment system construction and operation; all aspects of the leachate, ground water, surface water management system and erosion control and gas monitoring programs; equipment inspection and maintenance monitoring; materials management control and placement; odour, dust and litter control; and acceptable wastes.



- 34.2 The Maintenance and Operations Manual shall be submitted to the MOEE District Manager, the CLC, and the City prior to commencement of landfilling. Where revisions to the Maintenance and Operations Manual are necessary and/or desirable, the Company shall submit the changes to the Regional Director for approval after consultation with the CLC and the City. Approval by the Regional Director is required prior to those changes being implemented. Should the provisions of this manual conflict with this Certificate, the Company shall operate the Site in accordance with this Certificate.
- 34.3 Access to the Site shall be via the existing quarry entrance from Highway 20. Exit from the Site shall be from the existing quarry exit onto First Road West southerly to Mud Street.
- 34.4 The Company shall ensure that all trucks owned by the Company, or related companies, use Highway 20 as the primary haul route to and from the Site. The Company shall use its best efforts to encourage independent carriers to also use Highway 20 as the primary haul route, including the posting of signs at the entrance and exit. The Company shall refuse access to the Site to trucks and/or carriers found to be in continuous non-compliance with this Condition. Where changes or upgrades to the local road network occur, and changes to the primary haul route are necessary or convenient, such changes shall be submitted to the Director for approval after consultation with the CLC and the City and prior to implementation.
- 34.5 The Company shall keep roads used by trucks leaving the Site free of dirt and waste to meet the requirements of the applicable roads authority.
- 34.6 Prior to a waste type being landfilled which is significantly different from a waste type landfilled in the West Quarry in the past, the Company shall inform the Regional Director of MOEE, the CLC and the City in writing of the new waste type proposed to be landfilled.
- 34.7 The Company shall take all reasonable steps to ensure that the Site is inspected regularly by trained personnel for any situation which may cause an adverse effect and to ensure that the Site is being operated in accordance with the Certificate. The Company shall remedy any deficiency which may cause an adverse effect.
- 34.8 The Company shall take all reasonable steps to prevent off-site litter impacts from the Site operation.



- 35 Prior to the discontinuation of pumping of the groundwater collection system, the Company shall submit an application to the Director for approval of such action, following consultation with the CLC and the City. The application shall include technical justification for discontinuation of pumping of the groundwater collection system and an assessment of the impacts of allowing the groundwater to rebound including the impact on the hydraulic control layer and monitoring programs at the Site.
- 36 Rock extraction/blasting work associated with the quarrying operation shall be completed in the East Quarry Site no later than four (4) years from the date of issuance of this Certificate.
- 37 Once liner installation has commenced, blasting shall be conducted in such a manner as to ensure that the maximum peak particle velocity of shock waves produced at the nearest point of installation, by the blasting source, shall not exceed a level of 50 mm/s in any one of the three mutually orthogonal directional planes, i.e. longitudinal, vertical or transverse. A minimum of a 100 metre buffer between the rock extraction/blasting work and the liner system shall be maintained at all times.
- 38 Site Supervision
- 38.1 No waste shall be accepted, landfilled or removed from the site unless a Site supervisor is present and supervises the operation.
- 38.2 The Company shall ensure that all site operations employees have been adequately trained prior to acceptance of waste at the Site with respect to the following:
- a) terms, conditions and operating requirements of this Provisional Certificate of Approval;
 - b) the operation and management of the Site with respect to the Operations and Maintenance Manual;
 - c) relevant waste management regulations and legislation;
 - d) environmental concerns related to the waste being handled at the Site;
 - e) occupational health and safety concerns pertaining to the waste being handled at the Site; and
 - f) emergency procedures and contingency plans in cases of fire, off-site impacts and any other emergency situation.
- 38.3 The Site is deemed to be closed when a site supervisor is not present at the Site.



38.4 To assist the site operating personnel, the Company shall ensure that the Maintenance and Operations Manual, required by Condition No. 34.1, and all revisions is kept on Site at all times following commencement of landfilling.

39 Leachate Management

39.1 No leachate and/or contaminated water collected at the Site shall be discharged to the natural environment except as outlined in Item No. 4 of the attached Schedule "A", Surface Water Impact Assessment report, providing the surface water trigger levels for the proposed contingency plans.

39.2 All collected leachate and/or contaminated water shall be discharged to the Regional sanitary sewer or an alternative acceptable to the Director.

39.3 If the Company discharges leachate and/or contaminated water directly to the Regional sanitary sewer system then the Company shall obtain, and maintain at all times, Agreements with the Region of Hamilton-Wentworth which will specify the permissible quality and quantity of leachate that can be discharged to the Regional sanitary sewer system. These agreements shall also outline the monitoring and reporting requirements to demonstrate compliance. A copy of these Agreements and any changes to these agreements as may occur from time to time, shall be provided to the Director, the CLC and the City prior to any discharge of leachate to the sanitary sewer system.

40 The Company shall, during normal operations, limit dust impacts using the control measures as indicated in Item No. 9 of the Schedule "A" and in any event shall take all necessary steps as are reasonably necessary to limit dust impacts from the Site.

41 The Company shall maintain a minimum of one watering truck at the Site for the purpose of mitigating dust impacts.

42 The Company shall require all vehicles leaving the landfilling area of the Site to pass through a wheel washing facility. The wheel washing facility shall be constructed and operational prior to acceptance of waste at the Site. The design of the wheel washing facility shall be submitted to the Director for approval and approved prior to construction of such facility.



NOISE

- 43 The landfill Site shall be required to operate within the noise level limits prescribed in the Ministry's document "Noise Guidelines for Landfill Sites".
- 44 The monitoring of sound levels of daily activity in the Site shall typically occur twice/ year and relate to periods of peak filling activity within 5 m of final contours of the Site. Monitoring shall be conducted at representative locations identified in the noise impact assessment prepared by Vibration Assessment Limited, dated May 15, 1995. Where possible measurements shall be taken during neutral lapse conditions (cloudy day) under light winds for measurement of the sound to the south and southwest of the site. Prevailing, light, southwesterly winds or neutral lapse (cloudy day) light wind conditions are preferred in the assessment of the noise affecting lands to the north of the Site. Measurements of the hourly Leq shall be carried out for four (4) representative hourly periods at each location between 0900 and 1530 hours. All measurements shall be attended and reported as per the MOEE NPC 103 for Varying Sound, with the report identifying the source of sound heard at each location and its relative contribution to the total Leq.
- 45 The Site should be operated so as to not exceed predicted noise impact as set out in Item No. 8 of the attached Schedule "A", and in any event, noise generated by the operation of the Site shall not exceed the MOEE landfill noise guidelines at any residence.
- 46 Prior to construction of Phase 7, the Company shall reevaluate the extent of development within 500 m north of the northern property boundary. If new residential or residential- institutional development is anticipated during Phases 7 or 8, then additional noise attenuation measures shall be implemented while landfilling occurs within 250 m of the north property boundary and above elevation 197 mASL consisting of:
- a) Raising the peak elevation of the north perimeter barrier to a minimum elevation of 210 mASL; and
 - b) Restricting landfill operations to one piece of off-road heavy equipment operating within this area at any given time.



The Company may apply to the Director of the MOEE for approval of an alternative method of noise attenuation that accounts for the actual nature and extent of development at that time. These alternatives shall be developed in consultation with the City and the CLC. The application must be supported by a noise impact assessment that demonstrates that the noise impacts associated with the alternative method will not exceed the noise impacts reported in Vibration Assessment Limited, May 15, 1995. The Company shall seek comment from the City and the CLC prior to submission to the Director for approval.

- 47 Prior to receipt of waste at the Site, the Company shall be required to submit a Report on the proposed noise monitoring program to the Director for approval. The Report shall describe:
- a) the structure and responsibilities of a monitoring committee; and
 - b) the details regarding the proposed noise monitoring program. For example, the sources which will be monitored, the location/frequency of monitoring and the procedures which will be followed when conducting these measurements.
- 48 All on site equipment used during the start up, operation and closure of the facility which are of the type described in Publication NPC-115 and Publication NPC-118 of the Ministry's Model Municipal Noise Control By-Law or which are capable of being used for similar applications shall comply with the noise emission standards contained therein.
- 49 Construction and removal of noise mitigating berms for each cell of the Site shall be in accordance with a plan to be prepared by a qualified noise consultant. The purpose of such a plan will be to minimize noise. The plan shall be submitted to the Director, the CLC and the City for comment prior to implementation.
- 50 Where the use of berms has been assumed in the estimate of noise impacts in the noise assessment report of Vibration Assessment Ltd., dated May 15, 1995, the berms shall be constructed and shall be placed such that line-of-sight is broken between a receiving point of 1.5 m above grade at any residence and a point amongst the operating face equipment, 4 m above the highest fill elevation at the location. These berms shall be shown on the operations plan.



REPORTING

- 51 Daily records shall be maintained at the Site which shall include the following:
- a) the date, time of arrival, name of hauler, vehicle license plate number, type, origin and quantity (by weight) of all waste received at the Site;
 - b) all complaints from the public received by the Company and an indication of the action taken by the Company in response;
 - c) results of any tests done to determine the acceptability of waste at the Site;
 - d) calculation of the total quantity (by weight) of waste received at the Site for each day; and
 - e) a record of litter collection activities and site inspections.
- 52 The Company shall maintain a written record of site inspections at the Site. The record shall include the following:
- a) time and date of the inspection;
 - b) name, title and signature of trained personnel conducting the inspection;
 - c) listing of all general site areas, fencing, gates, systems inspected and deficiencies observed; and
 - d) recommendations for remedial action and the date the remedial action, if necessary was completed.
- 53 All daily and site inspection records shall be retained on Site for a minimum of two years. The Company shall make all records available upon request for inspection by the MOEE.
- 54 By June 30th of each year, an annual report on the use, operation, and monitoring of the Site during the previous calendar year shall be submitted to the Regional Director. The report shall include the following:
- a) the results and an interpretive analysis of the results of all air, ground water, surface water, landfill gas, noise and leachate monitoring including:
 - i) the adequacy of the monitoring programs and recommendations for any modifications to programs as appropriate;
 - ii) the extent to which the monitoring results indicate compliance with the conditions of this Certificate, PWQO, ODWO, the Reasonable Use Guideline and any other relevant statutes and guidelines;



- iii) the trend of the monitoring results with respect to future compliance with the conditions of this Certificate, PWQO, ODWO, the Reasonable Use Guideline and any other relevant statutes and guidelines;
 - iv) the current or expected future need to implement contingency plans and/or additional mitigation measures to ensure compliance with the Conditions of this Certificate, PWQO, ODWO, the Reasonable Use Guideline and any other relevant statutes and guidelines; and
 - v) an impact assessment of the West Quarry Landfill on the East Quarry landfill.
- b) site plans showing:
- i) existing contours of the Site;
 - ii) areas of landfilling operation during the reporting period and areas of intended operation during the next reporting period;
 - iii) areas of excavation during the reporting period;
 - iv) the progress of final and interim cover application; and
 - v) previously existing site works, works installed during the reporting period, and works planned for installation during the next reporting period.
- c) The results of on and off site noise level measurements including a description of the operations at the Site at the time these measurements were conducted.
- d) Calculations of the volume of waste, interim cover and final cover disposed or applied during the reporting period and a calculation of the total volume of site capacity used during the reporting period.
- e) A calculation of the remaining capacity of the Site and an estimate of the remaining Site life.
- f) A summary of the quantity, source and types of waste received at the Site.
- g) A discussion of any approved changes to the operation, equipment and/or procedures at the Site including their effects, if any, on the sound environment within the local community. If these changes resulted in an increase in noise levels a description of the mitigation measures which were taken to reduce the impacts and of the effectiveness of these measures are to be provided. Recommendations respecting any proposed changes in the operation, equipment and/or procedures at the Site and their effects, if any, on the sound environment within the local community with proposed mitigation measures.



- h) A summary of any occurrences or incidents where this Certificate was not complied with, the reasons for non-compliance and the measures to be implemented to ensure that future non-compliance does not occur.
- i) A list of all complaints and a record of the Company's responses to such complaints, including a list of complaints filed with MOEE and the City, where such information is reasonably available to the Company;
- j) A discussion of any operational problems encountered at the Site and the remedial measures taken including the control of dust and noise; and
- k) Any other information with respect to this waste Site which the Regional Director may require from time to time.

MONITORING

55 Ground Water Wells/Monitors

- 55.1 Any ground water monitoring wells from the ongoing monitoring program that are damaged shall be assessed, repaired, replaced or decommissioned as required.
- 55.2 All monitoring wells which form part of any monitoring program shall be properly capped, locked and protected from damage.
- 55.3 All monitoring wells which are no longer required as part of any ground water monitoring program, and have been approved by the Regional Director for abandonment, shall be decommissioned, as required, in accordance with good standard practice that will prevent contamination through the abandoned monitor. A report on the abandonment of the well shall be included in the annual monitoring report.
- 55.4 The company shall replace any monitoring wells which are destroyed or in any way made to be inoperable for sampling such that no more than one regular sampling event is missed.

- 56 Within 180 days of the issuance of this Certificate, the Company shall provide to the Director a plan for monitoring and assessment of the horizontal and vertical extent of the West Quarry impacted groundwater plume beneath the East Quarry Landfill Site. This plan shall consider