



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

STEPHEN R. PRITCHARD
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

January 9, 2006

Chris Muir
Sun-Mar Corp.
5370 South Service Road
Burlington, ON L7L5L1
Canada

Re: Application for BRP WP61b- Approval of Alternative System for General Use
Trade name of technology and model: Sun-Mar Composting Toilets Excel, Centrex 1000
(1000, 1000 AC/DC, 1000 NE), Centrex 2000 (2000, 2000 A/F, 2000 AC/DC, 2000 A/F
NE, 2000 AFAC/DC, 2000 NE), Centrex 3000 (3000, 3000 A/F, 3000 AC/DC, 3000 AF
NE, 3000 AFAC/DC, 3000 NE)
DEP Transmittal Numbers: W056723

Dear Mr. Muir:

The Department of Environmental Protection has completed its review of your application for Certification of the above referenced technology. We are pleased to issue the enclosed CERTIFICATION FOR GENERAL USE.

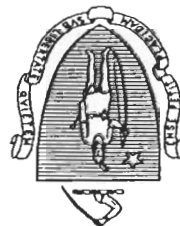
Should you have any questions regarding this Approval, or should you wish to meet with us to discuss any questions or concerns you may have, please do not hesitate to contact Dana Hill at 617-292-5867. Thank you for your interest in seeking approval for the use of your innovative technology in Massachusetts.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn Haas".

Glenn Haas, Director
Division of Watershed Management

Enclosures: Certification for General Use- Sun-Mar System



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CERTIFICATION FOR GENERAL USE
Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Sun-Mar Corp.
5370 South Service Road
Burlington, ON L7L5L1
Canada

Trade name of technology and model: Sun-Mar Composting Toilets, models: Excel, Centrex 1000 (1000, 1000 AC/DC, 1000 NE), Centrex 2000 (2000, 2000 A/F, 2000 AC/DC, 2000 A/F NE, 2000 AFAC/DC, 2000 NE), Centrex 3000 (3000, 3000 A/F, 3000 AC/DC, 3000 AF NE, 3000 AFAC/DC, 3000 NE) (hereinafter the "System"). Schematic drawings of these models are attached.

Transmittal Number:

W056723

Date of Issuance:

January 9, 2006

Expiration date:

January 9, 2011

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Certification for General Use to: Sun-Mar Corp., 5370 South Service Road, Burlington, ON L7L5L1, Canada (hereinafter "the Company"), certifying the System described herein for General Use in the Commonwealth of Massachusetts. Sale and use of the System are conditioned on and subject to compliance by the Company and the System owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

Glenn Haas, Director

Division of Watershed Management

Department of Environmental Protection

Date

1/9/06

I. Purpose

1. The purpose of this Certification is to allow the use of the System in Massachusetts on a General Use basis.

2. With the necessary permits and approvals required by 310 CMR 15.000 and the Uniform State Plumbing Code, 248 CMR 10.00, this Certification authorizes the installation and use of the System in Massachusetts.

II. Design Standards

1. The System is a biological composting toilet that uses aerobic decomposition and evaporation to transform human fecal waste, urine and toilet paper to a humus. The humus requires periodic disposal. All System models incorporate a three chamber design with waste and a manually added peat mix bulking material entering through the waste inlet port at the top of the composting chamber or Bio-Drum. Every two days, the drum handle is turned to mix and aerate the waste-peat mixture or compost. The inlet door closes automatically keeping the compost in the drum. Excess compost is periodically moved from the drum into the compost-finisher drawer (chamber) for final composting by rotating the drum handle in the opposite direction. The third chamber, the evaporation chamber, evaporates excess liquids. A fan draws air over the evaporation chamber into a two-inch diameter vent stack attached to the unit creating a partial vacuum within the toilet. Most System models include a thermostatically controlled heating element to assist the evaporation process. The non-electric models (NE) may be used with an optional 12-volt D.C. powered ventilation fan, no heater element and require a four-inch diameter vent. Centrex models, designed with toilets connected to a central composting unit, include the one-pint water flush version and the airflow version (A/F or AF).

2. The user, both at start up and periodically, as described in the System owner's manual must add a peat mix of 30% peat moss and 70% non-cedar wood shavings (one cupful per person per day of use is recommended) to maintain effective composting. The System must be installed in area that is maintained above a temperature of 55 – 60 degrees F during periods that the system is in use.

3. The system is designed to collect the excess liquid portion of the wastewater, not absorbed by the compost, in the evaporator chamber where it is evaporated and vented through a designated stack for the compost only. The evaporator chamber includes a 1/2 inch diameter emergency drain for use during prolonged power outages or heavy use.

4. The models listed in the table below are covered under this Certification.

Model Number	Company's Rated Daily Use - Year Round Residential
Centrex 1000 [1]	3 persons/day
Centrex 1000 NE [1]	2 persons/day
Centrex 1000 AC/DC [1]	2 persons/day
Centrex 2000 [1]	6 persons/day
Centrex 2000 NE [1]	5 persons/day
Centrex 2000 AC/DC [1]	5 persons/day
Centrex 2000 AF/NE [1]	5 persons/day
Centrex 2000 AF [1]	6 persons/day
Centrex 2000 AF AC/DC [1]	5 persons/day
Centrex 3000 [1]	8 persons/day
Centrex 3000 NE [1]	7 persons/day
Centrex 3000 AC/DC [1]	7 persons/day
Centrex 3000 AF/NE [1]	7 persons/day
Centrex 3000 AF [1]	7 persons/day
Centrex 3000 AF AC/DC [1]	7 persons/day
Excel	3 persons/day

[1] Definitions:

NE - Non-electric

AF - Air Flow, systems that use a waterless toilet

AC/DC - Systems that can operate as electric or non-electric

5. Subject to the provisions of this Approval and 248 CMR 10.00, the System shall be installed in accordance with 310 CMR 15.289 with the exception of 310 CMR 15.289(3)(a)3. The requirement within 310 CMR 15.289 that composting toilets be designed to store pre-composted and composted soils for at least two years is not applicable to the System.

6. Residual solids from the System shall be disposed of in accordance with 310 CMR 15.289(3)(a)(3)(a) or (b), either by burial on-site or in another manner and location approved by the local approving authority, covered with a minimum of six inches of clean compacted earth, or disposed of by a licensed septage hauler.

7. The System shall be sized to accommodate use of the facility on a full time basis.

III. General Conditions

1. The provisions of 310 CMR 15.000 and 248 CMR 10.00 are applicable to the use of this System, except those that specifically have been varied by the terms of this Certification.

2. Any required operation and maintenance, monitoring and testing shall be performed in accordance with a Department approved plan. Any required sample analysis shall be conducted by an independent U.S. EPA or DEF approved testing laboratory. It shall be a violation of this Certification to falsify any data collected pursuant to an approved testing plan, to omit any required data or to fail to submit any report required by such plan.

3. In accordance with applicable law, the Department or the local approving authority may require the System owner to cease operation of the System and/or to take any other action as it deems necessary to protect public health, safety, welfare or the environment.

4. Design and installation and use of the System shall be in strict conformance with the Company's DEF approval, 310 CMR 15.000 and 248 CMR 10.00, subject to this Certification.

5. The materials, design, construction and performance of the System shall conform to the Massachusetts Uniform State Plumbing Code, 248 CMR 10.00.

6. The Company shall have and maintain System certification in accordance with NSF/ANSI 41 for Non-liquid saturated treatment systems and the System shall be an approved plumbing fixture by the Commonwealth of Massachusetts Board of Registration of Plumbers and Gas Fitters.

7. For new construction, the System may only be installed where a Title 5 designed greywater disposal system is installed to handle greywater or where a connection to a public sewer is available. Wastewater shall be discharged to the greywater system or the sewer when the System's evaporation and storage capacity is exceeded.

8. For remedial sites any overflow from the System may be discharged to a greywater disposal system or a tight tank, designed and installed in compliance with 310 CMR 15.260, "Tight Tanks".

IV. Conditions Applicable to the System Owner

1. The System shall not be installed until a Disposal System Construction Permit has been obtained from the local approving authority. DEP approval is not required unless in conjunction with variances pursuant to 310 CMR 15.412.

2. As part of an application to install and use the System for new construction, as defined by 310 CMR 15.000, of a single family home, the proposed System owner shall demonstrate that a Title 5 system designed in accordance with 310 CMR 15.000 can be installed at the facility or that a public sewer is available.
3. The System is approved in connection with the discharge of sanitary sewage only. Any wastes that are non-sanitary sewage generated and/or used at the facility served by the System shall not be introduced into the System and shall be lawfully disposed of.

4. The System owner shall at all times properly operate and maintain the System in accordance with the Company's owners manual and instructions, 310 CMR 15.000, 248 CMR 10.00 and this Certification.

5. The System owner shall furnish the local approving authority within a reasonable time any information, which the authority may request.
6. Each System is limited to a maximum design capacity per unit as shown in Section II item 4.

V. Conditions Applicable to the Company

1. The Company shall notify the Director of the Watershed Permitting Program at least thirty days in advance of the proposed transfer of ownership of the technology for which this Certification is issued. Said notification shall include the name and address of the proposed owner containing a specific date of transfer of ownership, responsibility, coverage and liability between them. All provisions of this Certification applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise.
2. The Company shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.

3. Prior to its sale of the System, the Company shall provide the purchaser with a copy of this Certification. In any contract for distribution or sale of the System, the Company shall require the distributor or seller to provide the purchaser of the System, prior to any sale of the System, with a copy of this Certification.

4. At the time of the sale of the System, the Company shall provide the purchaser of the System with an installation and operation and maintenance manual.

5. If the Company wishes to continue this Certification after its expiration date, the Company shall apply for and obtain a renewal of this Certification. The Company shall submit a renewal application at least 180 days before the expiration date of this Certification, unless written permission from the Department for a later date has been granted.

VI. Reporting

1. All notices and documents required to be submitted to the Department by this Certification shall be submitted to:

Director
Watershed Permitting Program
Department of Environmental Protection
One Winter Street - 6th floor
Boston, Massachusetts 02108

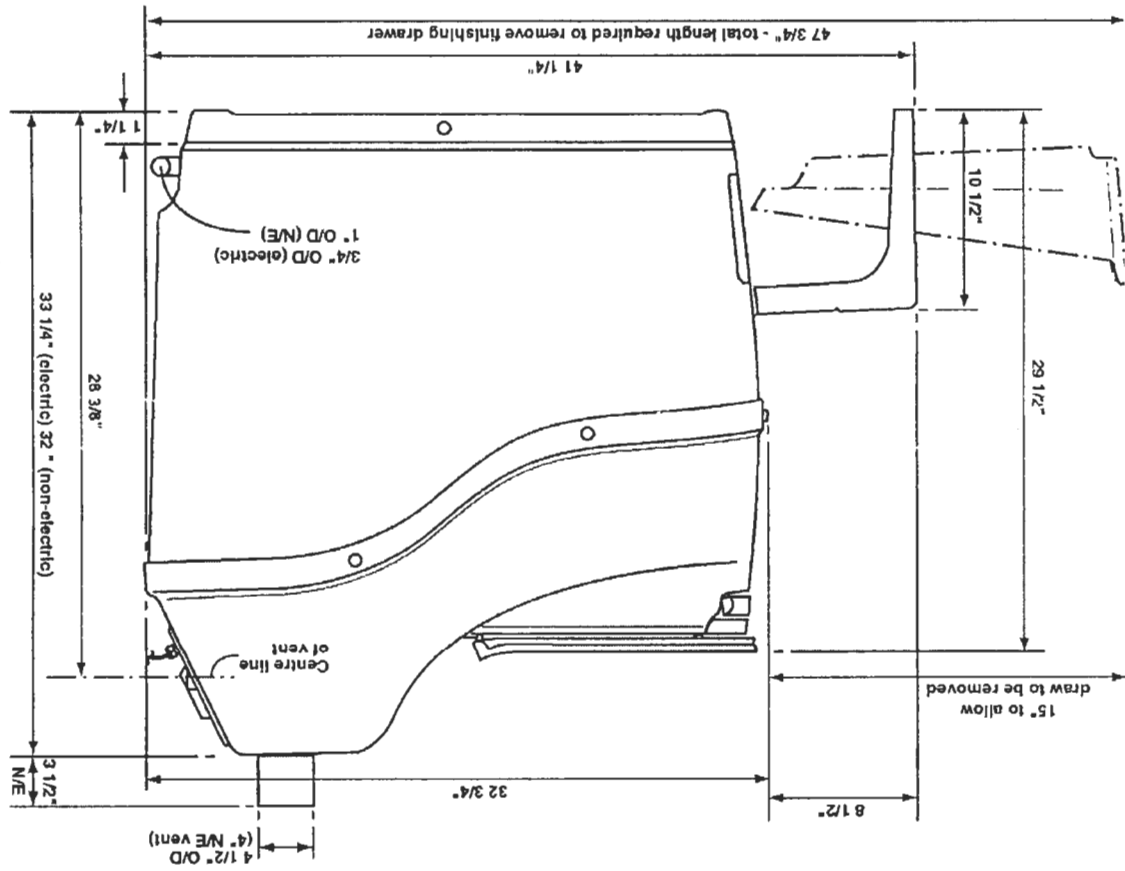
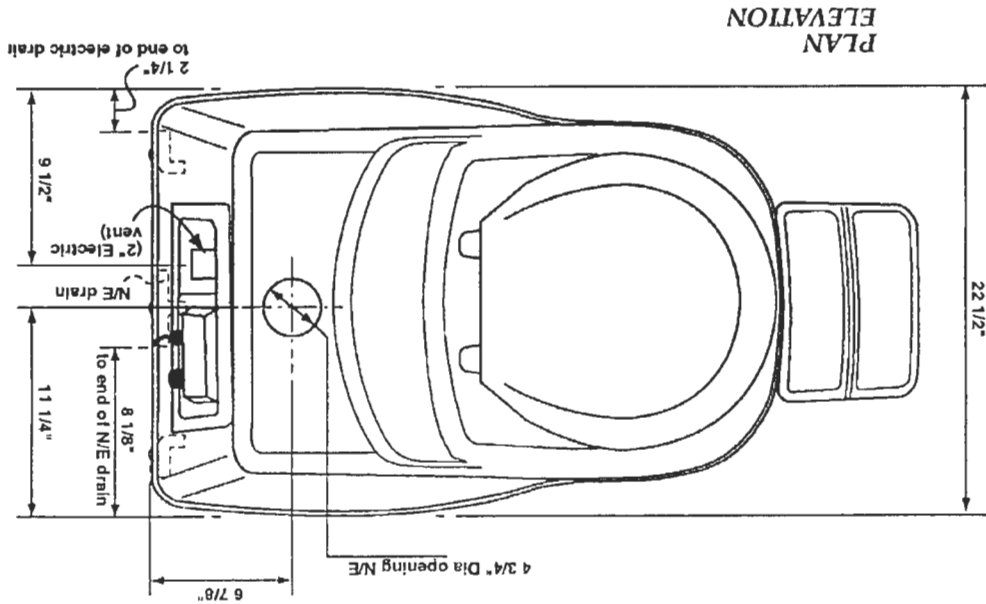
VII. Rights of the Department

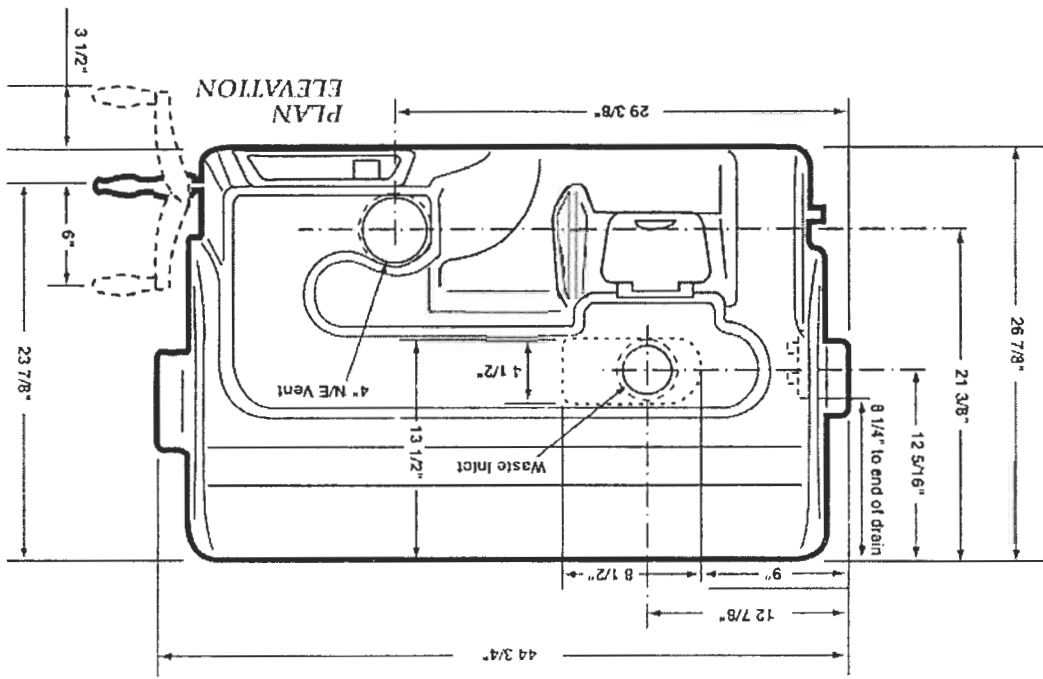
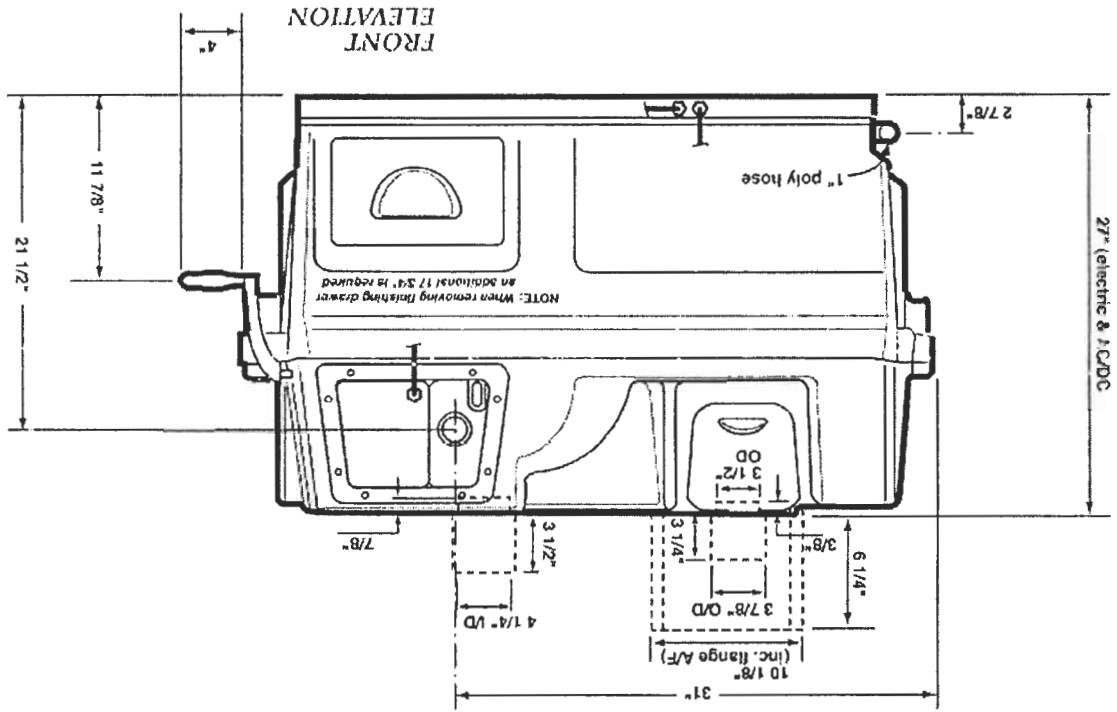
1. The Department may suspend, modify or revoke this Certification for cause, including, but not limited to, noncompliance with the terms of this Certification, non-payment of any annual compliance assurance fee, for obtaining the Certification by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Certification, or as necessary for the protection of public health, safety, welfare, or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to this Certification and/or the System against the owner, or operator of the System, and/or the Company.

VIII. Expiration Date

1. Notwithstanding the expiration date of this Certification, any System sold and installed prior to the expiration date of this Certification, and approved, installed and maintained in compliance with this Certification (as it may be modified) and 310 CMR 15.000, may remain in use unless the Department, the local approval authority, or a court requires the System to be modified or removed, or requires discharges to the System to cease.

EXCEL





Centrex 2000 NE ACDC AF AFNE AFACDC

Centrex 3000 NE ACDC AF AFNE AFACDC

