



Ontario

**Building Materials
Evaluation Commission**

**Commission d'évaluation
des matériaux
de construction**

777 Bay Street, 2nd Floor
Toronto, Ontario, M5G 2E5

Tel: 416 585 4234

Fax: 416 585 7531

Web: www.obc.mah.gov.on

Date of Authorization
BMEC Authorization Number
BMEC Application

November 30, 2006
06-09-329
BMEC A2006-11

AUTHORIZATION REPORT – The AcornVac™ System

1. Applicant

AcornVac, Inc.
13818 Oaks Avenue
Chino, California
91710, USA

Tel: 909 902-6532
Fax: 909 902-5041

2. Manufacturing

13818 Oaks Avenue
Chino, California
91710, USA

3. Description

The AcornVac™, Inc. Condensate and Grey Wastewater Collection System (the "AcornVac™") is primarily comprised of a vacuum generating unit, vacuum valves, collection devices, and controllers.

The vacuum generating unit consists of accumulators, system controllers, vacuum pumps, valves and dual stainless steel waste collection tanks. The vacuum valve, also known as an extraction valve, isolates vacuum pressures in the waste piping network from refrigerated food display and also controls the opening of the vacuum valves.

The collection devices, which are also known as accumulators, receive water draining from the refrigerated food display cases, and refrigeration coils, and the controllers monitor the collection devices.

4. Authorization Requested

The Applicant sought a Building Materials Evaluation Commission (“BMEC”) authorization for the use of the AcornVac™ as an equivalent to an indirectly connected food display drainage system that is required by Subclause 7.4.2.1.(1)(d)(i) of the Building Code.

5. Assessment

Reports and assessment provided by the applicant demonstrate that if the AcornVac™ is constructed, installed, operated, maintained and monitored in accordance with the limitations of the manufacturer specifications and conditions stated in this authorization, a level of performance equivalent to that required by the Building Code will be provided.

The following reports were submitted, and reviewed:

1. Manufacturer’s Literature, Acorn Vac™ Inc., Vacuum Plumbing Systems, Condensate Wastewater Collection for Supermarkets, Convenience Stores and Delicatessens.
2. Acorn Vac™ Inc., Vacuum Plumbing Systems “Design Manual”, version L100634D.
3. Acorn Vac™ Inc., Vacuum Plumbing Systems “Sample Installation Drawings”.
4. Acorn Vac™ Inc., Vacuum Plumbing Systems “AcornVac O & M Manual”.
5. Acorn Vac™ Inc., Vacuum Plumbing Systems “Design Manual”, version L100634D.
6. Acorn Vac™ Inc., Vacuum Plumbing Systems “Acorn Engineering Company, Quality System Manual” revision M.
7. IAMPO Research and Testing, Inc., accepted May 2005.
8. NSF International, Official Listing, July 27, 2006.
9. Interket ETL SEMKO, Authorization to Mark, dated July 25, 2005.
10. Approval from other authorities having jurisdiction:
 - a) State of Massachusetts, Board of State Examiners of Plumbers and Gas Fitters dated February 4, 2006.
 - b) City of Los Angeles, report number RR-5573, dated April 29, 2006.

6. Authorization

The AcornVac™ is authorized for use as a food display drainage system that provides an equivalent level of performance as an indirectly connected food display drainage system as required by Subclause 7.4.2.1.(1)(d)(i) of the Building Code; all other requirements, pertaining to the design, installation and construction are subject to the requirements of the Building Code, and are subject to the following terms and conditions:

Note: If a conflict arises between this document and the provisions of the documents listed below, the most restrictive provision shall apply.

A. Specific Terms and Conditions

1. This authorization is valid only for AcornVac™, Inc.
2. The AcornVac™ shall only be used in the collection of condensate, washdown and misting water from food display units.
3. The AcornVac™ supplied components, including Controller, Extraction Valve and Vacuum Waste Collection Centre shall be labelled with a minimum of the following information:
 - a) The AcornVac™, Inc. company mark,
 - b) AcornVac™ Inc.'s contact information, and
4. The AcornVac™ overhead vacuum waste drainage line shall be labelled with stickers, posted in multiple conspicuous locations, with the following information:
 - a) "Vacuum Waste Drainage System"
5. The connection to the sanitary drainage system shall be made by terminating the AcornVac™ a minimum of 25 mm (1") above the flood level rim of the fixture that is directly connected to the sanitary system.
6. The AcornVac™ shall be designed and installed by persons experienced with plumbing and plumbing systems, and who are approved and authorized by AcornVac.
7. The AcornVac™ shall meet the following standards:
 - a) IAPMO IGC 150-99 "Interim Guide Criteria For Vacuum Sewage And Condensate Collection Systems", and
 - b) CSA C22.2 No.14-95 "Industrial Control Equipment"

B. General Conditions

1. The use of the AcornVac™ and as described in the specific terms and conditions set out in 6.A. must comply with the Building Code Act, 1992 (the "Act") as amended or re-enacted from time to time and except as specifically authorized herein, with the Building Code.
2. A copy of this Authorization shall accompany each application for a building permit and shall be maintained on the site of the construction with the building permit.
3. The Applicant named in Part 1 hereof shall promptly notify the BMEC of:
 - (a) the failure of the Applicant, or of the material, system or building design that is the subject matter of this Authorization, to comply with any of the terms and conditions set out in 6.A. above; or
 - (b) the occurrence of any of the events described in conditions 6.B.4.(a) and (b)(ii) below.
4. The BMEC may amend or revoke this Authorization where it determines that:
 - (a) any change has been made to:
 - (i) the material, system or building design that is the subject matter of this Authorization;
 - (ii) the address of the applicant specified in Part 1 of this Authorization; or,
 - (iii) the ownership of the applicant specified in Part 1 of this Authorization.
 - (b) the use of the material, system or building design authorized herein;
 - (i) does not comply with the Act any relevant legislation as they may be amended or re-enacted from time to time; or
 - (ii) provides an unsatisfactory level of performance, in situ.
 - (c) the Applicant, or the material, system or building design that is the subject matter of this Authorization, has failed to comply with any of the terms and conditions set out in this Authorization; or
 - (d) any Building Code provision relevant to this Authorization has been amended or remade.

5. Where the BMEC receives additional information concerning the material, system or building design authorized herein, the BMEC may review this Authorization and the BMEC may after the review amend or revoke this Authorization as in the opinion of the BMEC may be necessary.

Dated at Toronto this 30 day of November 2006.

BUILDING MATERIALS EVALUATION COMMISSION

Edward Link, P. Eng.
Chair, BMEC