

**BUILDING MATERIALS EVALUATION COMMISSION
(BMEC)
AUTHORIZATION REPORT**

DATE OF AUTHORIZATION
BMEC REFERENCE
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February 24th 2000
BMEC 00-03-243
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September 29, 2011

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**JETVAC INC.
Engineered Water Collection Vacuum System**

*** 1. Applicant**

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*** 2. Manufacturing Facilities**

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3. Description

The **JETVAC INC. Engineered Water Collection Vacuum System** is comprised of a vacuum generating unit (vacuum pumps and control module); vacuum valves and timers which control opening of the valves; and collection boxes/interceptors which receive water draining from the refrigerated food displays. Using the vacuum generating unit and multiple collection points, the **JETVAC INC. Engineered Water Collection Vacuum System** accumulates condensate, washdown and misting water from refrigerated food displays, moves it overhead to a collection tank, then discharges it to the sanitary drain system.

- Each refrigerated food display drains by gravity to a collection box / interceptor via a drain pipe having a water trap.
- Each refrigerated food display drain is equipped with and served by a dedicated vacuum make-up air opening located between the trap and the collection box/interceptor and terminating below the bottom level of the food display.

- One collection box/interceptor may serve up to eight refrigerated food displays and each collection box/interceptor is equipped with a triggering device causing the vacuum valve (which isolates it from the vacuum piping) to open when the water level in the collection box/interceptor reaches a set point.
- As the vacuum valve opens, water is drawn out by vacuum and transferred overhead (maximum vertical rise of 24 feet) to the collection tank. From the collection tank, the waste water is pumped through an indirect connection to the sanitary drain system.

4. **Authorization Requested**

The applicant sought authorization for the **JETVAC INC. Engineered Water Collection Vacuum System** as providing a level of performance equivalent to that required by Subclause 7.4.2.1.(1)(d)(i) of the Ontario Building Code, 1997 (the OBC).

5. **Assessment**

Reports and assessments provided by the applicant demonstrate that:

- 1) The indirect connection to the sanitary drain system at the discharge from the vacuum pumps of the **JETVAC INC. Engineered Water Collection Vacuum System** provides an equivalent level of performance to the prescribed individual food display connections required by Subclause 7.4.2.1.(1)(d)(i) of the OBC, in protecting the food in the displays from possible contamination caused by the sanitary drainage system.
- 2) The make-up air opening in the drain pipe exiting each refrigerated display ensures, that should the vacuum system fail, waste water from a display or from other displays, will exit to the floor and not back up into the food displays.
- 3) The make-up air opening is not a vent pipe for the purpose of Sentence 7.5.5.5.(1) of the OBC.

Accordingly, if the **JETVAC INC. Engineered Water Collection Vacuum System** as described in Section 3 above is designed, manufactured, installed and maintained in accordance with the limitations and conditions stated in this Authorization, it will provide a level of performance equivalent to that which would be achieved by conformance with Subclause 7.4.2.1.(1)(d)(i) of the OBC.

Reports submitted and reviewed:

1. Quality Control Manual relating to Vacuum Collection System Components
2. Description and Specification of System
3. Quality Control Manual
4. Installation Guide
5. JETVAC Vacuum System - Maintenance Manual

6. Authorization

The **JETVAC INC. Engineered Water Collection Vacuum System** as described above, is authorized as providing a level of performance equivalent to that which would be achieved by conformance with Subclause 7.4.2.1.(1)(d)(i) of the OBC, when designed, manufactured, installed and maintained in accordance with the manufacturer's recommendations and the following terms and conditions:

A. SPECIFIC TERMS AND CONDITIONS:

1. This Authorization is valid only for the **JETVAC Inc. Engineered Water Collection Vacuum System**.
2. The **JETVAC Inc. Engineered Water Collection Vacuum System** shall only be installed to collect condensate, washdown and misting water from refrigerated food displays.
3. The connection to the sanitary drainage system shall be made by terminating the **JETVAC Inc. Engineered Water Collection Vacuum System** discharge, a minimum of 25 mm above the flood level rim of the fixture that is directly connected to the sanitary system.

B. GENERAL CONDITIONS

1. The use of JETVAC Inc. Engineered Water Collection Vacuum System must comply with the Building Code Act, 1992 as amended or re-enacted from time to time and except as specifically authorized herein, with the Ontario Building Code as amended or remade from time to time.
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 Section 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 Section 6. A. above; or
 - (b) the occurrence of any of the events described in Sections 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 Section 1 of this Authorization; or,
 - (iii) the ownership of the applicant specified in Section 1 of this Authorization.
 - (b) the use of the material, system or building design authorized herein;
 - (i) does not comply with the Building Code Act, 1992 or 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 Section 6. A. above; or
- (d) any Ontario Building Code provision relevant to this Authorization has been amended or remade.

Dated at Toronto this 24th day of February 2000

BUILDING MATERIALS EVALUATION COMMISSION

per: Rashmi Nathwani, Chair