



Lachine, April 30, 1999
178-3094

BMI Inc.
3437, Grande-Allée
Boisbriand, Quebec
J7H 1H5

To the attention of Mister Martin Bouthillette

Object: Testing report on polyethylene elbows

Mister Bouthillette,

Upon your request we tested on polyethylene elbows that we received last April 1st to confirm that they comply with National Building Code 1995 para. 6.1.7.6 d " All discharge pipes from a valve of discharge or thermal safety valve must function at a water temperature of at least 99°C."

The samples we tested are as follows:

- Polyethylene elbows of $\frac{3}{4}$ " x $\frac{3}{4}$ " x 12 $\frac{1}{2}$ " long, smooth, threaded $\frac{3}{4}$ " NPT male at 4 recoveries on one side and $\frac{3}{4}$ " NPT female at the other, white, the part number 08605, average thickness of 0.110", mass of 65 g.

Two (2) elbows are used for each test.

As per our discussion with you, it was decided that the testing was to be inspired by the standard CSA B137.10-97 para 4.8.10 "Temperature excessive" and para 4.8.9 "Thermal cycling".



The testing at excessive temperatures consisted of conditioning the tubing assemblies and elbows at a temperature of 99°C for 48 hours with a pressure of 150 lbs/po². Testing was conducted from April 8th to the 16th 1999.

Services d'essais Intertek AN Ltée
Intertek Testing Services NA Ltd.

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The thermal cycling test consists of plunging the pressurized elbows at 150 lbs/po in basins filled with water at 20°C and 98°C for 2 minutes each.

The equipment used for testing is as follows:

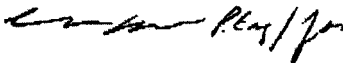
- Oven Digital thermometer (#180-218) calibrated in September 1998
- Pressure Gauge (#180-042), calibrated July 1998
- Thermal cycling rig (#180-051)

The elbows underwent both tests without damage.

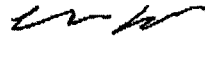
In conclusion the elbows submitted to testing meet the requirements of the National Building Code previously mentioned.

Testing by:

Verified By:



Jacques St-Denis, technician
Certification and Physical Testing



Claude Pelland, P. Eng.
Regional Director
Certification and Physical Testing

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ITS Intertek Testing Services

Lachine, March 11, 1999
178-3088

BMI INC.
3437 Grande-Allée
Boisbriand, Québec
J7H 1H5

Attention: Mr. Martin Bouthillette

OBJECT: Testing performed on polyethylene tubing

Mr. Bouthillette:

We would hereby like to confirm that, following a series of tests performed on the samples described below, the products tested met the requirements of the National Building Code, 1995, para. 6.1.7.6 d) stating that all overflow tubing of a check valve and/or safety valve must operate at a temperature of at least 99°C".

Samples submitted for testing were the following:

- Polyethylene tubing, 3/4" dia., smooth, threaded 3/4" NPT male at one end, average thickness of 0.042", white, part numbers 08614 and 08616.

We trust everything is satisfactory and remain,

Yours truly,



Claude Pelland, Eng.
Regional Manager
Certification and Physical Testing



CP/II



Intertek Testing Services NA Ltd.

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