

**BC BUILDING CODE INTERPRETATION COMMITTEE  
AIBC, APEGBC, BOABC, POABC**

**File No: 98-0101**

**INTERPRETATION**

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Interpretation Date: October 15, 2003

Building Code Edition: BC Building Code 1998

Subject: Expanded Polystyrene foam

Keywords: polystyrene foam

Building Code Reference(s): 9.25.2.2.(4).

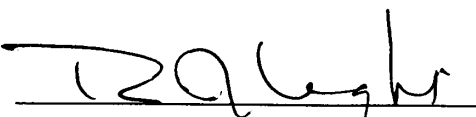
**Question:**

With the removal of Sentence 9.25.2.2.(4) from the Code, is type 1 Expanded Polystyrene foam permitted under concrete slab for all types buildings, including freezers and ice rinks?

**Interpretation:**

Yes

Subsequent to the decision of the Standing Committee on Houses at the June 19-20, 1998 meeting, (attached) Sentence 9.25.2.2.(4) was removed from the Code by Circular 9902 issued by the Ministry of Municipal Affairs, Building Policy Branch on June 21, 1999.



R. J. Light, Committee Chair

The views expressed are the consensus of the joint committee of AIBC, APEGBC, BOABC, and POABC, which form the BC Building Code Interpretation Committee. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

prohibition of Type 1 EPS from applications in contact with the ground and above roof membranes cannot be supported on documented experience.

A question was asked if staff had reviewed the documentation submitted; it was answered that compressive strength was not studied, but that other design aspects were acceptable. The Research Advisor also confirmed that the submission was supported by research work done recently by his laboratory. It was commented that flashing details are not an issue specific to EPS Type 1, and apply similarly to other plastics. A member asked how the variance of thermal resistivity with water content complies with the requirements of the Code. It was noted that, presently, there is nothing in the NBC to control such variation. The Research Advisor confirmed that in-situ tests show that Type 1 does not perform differently from Types 2 or 3. Mr. Bomberg commented that, whether in horizontal or vertical installations, where there is a thermal gradient across the insulation, the material dries more effectively toward the cold side than other plastic foams, therefore achieving better performance. On a question about testing for long-term performance and the fact that existing tests are not adapted to EPS, Mr. Whalen commented that his industry is working on such test standards.

Mr. Bomberg commented that originally, there was no quality assurance with the material; the standard-writing process at CGSB was particularly slow and, in the meantime, the industry achieved the necessary quality assurance; this is why it took so long to come to the issue raised today with Sentence 9.25.2.2.(4).

Satisfied with the review of the issue, the Standing Committee **agreed** to remove Sentence 9.25.2.2.(4) from the Code and **agreed** to ask the CCBFC to permit that it be issued as special change, on the grounds that the existing requirement creates a hardship for the industry [**Action**].

## Excerpt from the

MINUTES OF THE THIRD MEETING  
OF THE  
STANDING COMMITTEE ON HOUSES  
held in Ottawa, on June 19-20, 1998.

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### 3.9 PROPOSED CHANGES

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#### **3.9 (6) 9.25.2.2.(4) Type 1 EPS in Contact with the Ground**

Four visitors involved with this proposed change were introduced and welcomed: Messrs. Whalen, St-Michel, Barnes and Bomberg. Mr. Whalen was the spokesperson and referred to Sentence 9.25.2.2.(4) as discriminating against the foamed plastics insulating form industry. He voiced concern that the application of Type 1 EPS was limited in this fashion in Part 9 only, not in the rest of the Code. He stated that, based on CMHC housing start statistics, this discrimination costs \$ 4,000,000 annually in sales and he asked for a special change.

The Committee reviewed information produced at the time of the establishment of this requirement (see Additional Agenda Item 3.9 (6), after page 784). It was noted that the letter from Canada Mortgage and Housing Corporation did report that no complaint had been received concerning issues or lack of performance with the material in contact with the ground outside of foundations. The original decision was based on lack of information on the performance of Type 1 EPS, not on its lack of performance. It was argued that we now have the necessary information. Reference was made to reports submitted (see Agenda tab 3.9 (6), page 860). The water absorption in the standard tests is to distinguish between foams and not really relevant to the amount of water actually absorbed in actual applications; the freeze-thaw performance is now documented and not really an issue. The information produced shows that although water retention is not negligible, the material still maintains its insulation value. It was concluded that