

## Stringing Together Two Standards

Since the publishing of the CSA/Z614-98 standard in spring of 1998 there has been some confusion as to the performance requirements for the protective surface as define in section 3.1 and subsequently in section 10. This article should clear up the use of the CSA standard in combination with the ASTM standard and the current status of the revisions of the ASTM F1292 as of spring 1999. The reference to ASTM F1292 in section 10.2 and the requirement to maintain the surface to the requirements of section 10 have caused some confusion for the owner of the play surface as to the way that the two standards overlap or mesh to allow for competent installations and maintenance of surfaces.

The main document in Canada will be the CSA standard for Children's Playspaces and Equipment and will take precedence and state any exceptions or additions with relation to any other standard that is referenced in the document. With regard to protective surfacing the definition and performance requirement of Section 3.1 and Section 10 relate to all surfaces under and around play structures irrespective of when they were installed. Section 10.5.1 clearly requires that maintenance of protective surfaces meet the requirements of section 10.

Once it has been established that all protective surfaces are governed by the Z614-98, it is possible to review the test procedure of the ASTM F1292 document as it relates to the Z614-98. This standard provides for both a laboratory test procedure and site test procedure for the testing of impact attenuating surfaces. The laboratory tests are to be performed at three temperatures  $-1^{\circ}\text{C}$ ,  $23^{\circ}\text{C}$  and  $49^{\circ}\text{C}$ , while the field testing can be performed at any temperature within the above range. The ASTM F1292 standard is currently under revision and the F08.63 sub-committee has approved the addition of the free fall test method. During the spring of 1999 a ballot to uphold the decision of the sub-committee is in process. If the main committee upholds the decisions of the subcommittee ballot then and once the changes have been upheld, it is anticipated that the revised standard would be published in spring to summer of 1999.

As a result of the combination of the 2 standards, it becomes clear that the all playground surface materials should be tested according to the laboratory procedure prior to use in the playspace. The surface can also be tested in the field once it is in place.

A prudent installer or owner of a playspace as part of the due diligence required to prevent injuries may use the free fall triaxial hemispherical headform to test the surface as an indicator that the performance of the surface is under the requirements set in the standard. A surface that provides a  $G_{\text{max}}$  greater or equal to 200 or HIC greater or equal to 1000 should be taken out of service and/or replaced. Section 10.5.6 of the CSA Z614-98 states that "Periodic site testing of the protective surfacing is recommended". For this the practitioner should use the procedure in ASTM F1292 or alternatively the Free Fall Triaxial Hemispherical Headform, which has demonstrated highly correlated results to the method in ASTM F1292-96. This latter method would prove to be more readily available and provide a lower cost to the user.

*play and recreation surfaces* **EVERPLAY** INSTALLATION INC.

In summary, the CSA Z614-98 takes precedence over the ASTM F1292 test. All Protective Surfaces are to be tested to the ASTM F1292 procedures at the three required temperatures and further they are to be tested in the field on a periodic basis.