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TO : Members of the ICC Code Technology Committee
FROM : Elliott O. Stephenson

First, congratulations for forming a new important ICC Committee that the Building Officials of America have needed for many years. I'm confident your services will result in substantial benefits to our organization during future years and involve numerous significant developments in addition to the current problems related to readily climbable guards in buildings.


I am pleased to be able to give each of you a copy of the evidence I have been able to obtain from the NEISS Reports of injuries to young children treated at the 101 hospitals participating in that important program sponsored by the U S Consumer Product Safety Commission during a recent 5 ½ year period. A copy of my analysis of that data is also enclosed. It is important to recognize the 101 selected hospitals are only about 1/50 th of those in the 48 contiguous states.

I hope that each of you will make your own assessment of the available data and determine that approximately 20 percent of the falls and jumps described in the separate 62 pages involve some aspect of climbing prior to the actual fall or jump I have reported. It is probable that the same ratios of climbing apply to the 1419 incidents described in the separate 110 pages in which it is simply reported that a child fell or jumped from a balcony or deck. In fact, it could be even higher.

I also hope that each of you is aware of my Web page and its two links. Its address is www.winmarkeom.com/climbableguards.htm and the two links can be obtained directly from that page.

Also enclosed is a complimentary copy of a novel I published during January. About 1000 copies have been distributed to major libraries throughout the USA and to the various organizations interested in child safety in our country. All of the statements included in its Chapter 2 related to the code revision activities of the AIA, NOMMA and the NAHB effecting child safety in buildings during the past 28 years is factual. In my opinion, it is a shocking and dismal record that needs to come to a conclusion very soon.

Thank you for your courtesy.


Elliott O. "Steve" Stephenson

CC: James Lee Witt , CEO and Frank P. Hodge, Jr. , President

April 5, 2005

ANALYSIS OF THE ACCOMPANYING NEISS REPORTS
DATED NOVEMBER 18, 2003

An analysis of 110 computer printout sheets for the 5 ½ year period January 1, 1993 through May 31, 1998, describing 3470 injury falls and jumps from porches, balconies, open side floors and floor openings by children 6 years old and younger treated in the Emergency Facilities at the 101 hospitals participating in the NEISS Program revealed that there were 1808 incidents described as follows :

1419 Incidents in which a child fell or jumped from an elevated location

389 incidents in which a child fell from a chair or play vehicle onto a floor; fell against a banister or railing; or had splinters in hands or body when falling onto or sliding on a wooden deck or floor.

It should be noted that 78 percent or three quarters of the incidents provide no information whatsoever concerning the possibility that the child climbed over a guard before the actual fall or jump. Many of these incidents are not observed by a reliable witness and the only information provided is the height of the fall or jump; the severity of the injury; the type of building occupancy and the gender and age of the victim.

One might reasonably ask: “ How is a child able to jump from an elevated location without first getting past a guard ?” It is unlikely, with the result that many fall and jump incidents that include prior climbing are undocumented.

A second set of NEISS Reports covering the same 5 ½ year time period, consisting of 61 pages of computer data from the same 101 hospitals and children in the same age group was also analyzed. These reports include incidents that involved Handrails and Railings but a careful investigation of the reports will reveal that the term “ Handrails” is misleading. The intent is to refer to Banisters, Barriers and Guards. Falls and jumps at stairs and steps are an entirely different category reported elsewhere. There are 3470 incidents described in the 61 pages and 1662 of them appear to be meaningful and are included in the three groupings in the following tabulation.

One can now draw the following important and significant conclusions :

Those cases in which there is a certainty that a fall or jump from a Balcony, Porch, Railing, Banister or Railing was preceded by climbing are approximately 20 percent of the falls and jumps documented in the Neiss Reports that include detailed information of the circumstances.

Climbing is a major factor that warrants serious consideration by Building Officials and the inclusion of provisions in our building codes intended to inhibit the climbing of guards by young children.

The National Electronic Injury Surveillance System (NEISS) of the U S Consumer Product Safety Commission reviewed in this analysis are the following :

PORCHES, BALCONIES, OPEN SIDE FLOORS & FLOOR OPENINGS ; CHILDREN 6 AND YOUNGER

**HANDRAILS / RAILINGS, CHILDREN 6 AND YOUNGER
(ALSO INCLUDES BANISTERS)**

Both sets of reports are for the Time Period January 1, 1993 –May 31, 1998

It is truly unfortunate that others who published and described their findings related to the same time period at ICC sponsored code revision hearings had not requested nor obtained the complete records available from the Commission. As a result, many of their findings have been misleading, incomplete and erroneous.

It is obvious that additional information that would be of assistance to Building Officials in the further investigation of the hazards represented by readily climbable guards in buildings is needed. The current content of too many NEISS Reports is often extremely limited. Examples include the lack of information on the size of openings through which children climb and the details related to the design and construction of the banisters and railings, if any, at which fall and jump injuries occur. It is recommended the ICC establish a Special Task Group to fully investigate the possible means of improving the present situation.

Elliott O. Stephenson

SUMMARY OF FALLS AND JUMPS - CHILDREN 6 YEARS AND YOUNGER

FALL INCIDENTS THAT MAY OR MAY NOT INVOLVE PRIOR CLIMBING

Page No.	Child Passed Thru Opening In Guards	Child Fell Over Railing or Banister	Child Sitting on Railing or Banister	Child Swinging on Railing or Banister
2	3	1		
3		2		
4	1			
5		1		
6	2			
7	1			
8	1			
9	2			
10	1			
11				
12				
13	1			
14				
15	2			
16	1	3		
17				
18	1	1		
19				
20		1	2	
21	1		1	
22				
23		3		
24	1			
25	1			1
26	1	2		
27	2			
28	1			1
29	1	1		1
30	1	6		
31	1	2		
32		1		
33	1	2		
34	2	2		
35		2		
36	2	2		
37		1		
38		3		
39		4		
40	1	2		1
41	1	2		1
42	1	3	1	1
43	1	3		
44	2	3		1
45	1	2		
46		1		
47	1			
48	1	1		1
49	2	1		
50		1	1	

SUMMARY OF FALLS AND JUMPS - CHILDREN 6 YEARS AND YOUNGER

INCIDENTS RELATED TO THE CLIMBING OF GUARDS

Page No.	Specific Reference to Climbing	Falls Off or From Banisters/Railings	Jumps Off or From Banisters/Railings	Sliding Down Banisters/Railings	Standing On Banisters/Railings	Playing On Banisters/Railings	Number of Incidences on Page
2		2		(1 Straddle)			30
3	1	1		1			31
4	1	6					26
5		7					26
6	2	5		1	1		30
7	1	6	1				28
8	1	6	1				29
9	2		1				28
10	2	3		1		1	32
11	2	2		1			28
12	1	3	1			1	30
13				1			29
14	1	1		1	2		26
15	3	2 (1 Straddle)					29
16	2	3					28
17		5 (1 Fence)		1			27
18	2	3		1		3	28
19		7					26
20	2	9		1			30
21	1	1		2			27
22	2	3			1		28
23							24
24		1		1	1		27
25		2		2			27
26	1	3	1	2	1		27
27	1	4		1			26
28		3					26
29	1	8				1	25
30		3	1			1	28
31		4					29
32		3	1	2			29
33	2 (1 Straddle)	4					27
34	1	3 (1 Straddle)		3			31
35	1	1		2			27
36		3					30
37		1		1		1	29
38	2	1					31
39		3			1	1	28
40	1	2			2		28
41		3		2		1	26
42	2	4					30
43	1	1	1	1			26
44		3		2			28
45	1	1					28
46	1	1		1		1	30
47	1	5 (3 Straddle)			(1 Straddle)		26
48	1	5			5		28
49	2	1				1	26
50	1	5		2			29

SUMMARY OF FALLS AND JUMPS - Continued

Page No.	Specific Reference to Climbing	Falls Off or From Banisters/Railings	Jumps Off or From Banisters/Railings	Sliding Down Banisters/Railings	Standing On Banisters/Railings	Playing On Banisters/Railings	Number of Incidences on Page
51	1	5			1		27
52		4					28
53	2	3					26
54		6		1			28
55	1	5 (1 Straddle)					26
56		2		1		1	26
57		2 1 (Straddle)	1				27
58		4					26
59		3		1			26
60	1	3 (1Straddle)			1		25
61		5		1			25
62		3	1			1	24
63		3	1	1			26

TOTALS FOR PAGES 2 THROUGH 63

Specific Reference to Climbing	Falls Off or From Banisters/Railings	Jumps Off or From Banisters/Railings	Sliding Down Banisters/Railings	Standing On Banisters/Railings	Playing On Banisters/Railings	Number of Incidences
51 (1 Straddle)	200 (8 Straddles)	11	39 (1 Straddle)	11 (1Straddles)	14	1662

Total Injuries treated in Hospital Emergency rooms = 1662

Total Falls and Jumps from or off of Banisters and Railings = 211

Total specific Climbing incidents witnessed by others = 51

The forgoing is a tabulation of the 326 falls and jumps that can be specifically attributed to prior climbing, separated into six different categories. The 326 falls and jumps represent 19.6 Percent, or about one fifth of the total. That amount is consistent with the 20 percent calculated in my article “Climbable Guards – Special Enemy of the World’s Children “ published by BOCA, ICBO and the SBCCI during 2001 and 2002, based upon a different set of NEISS Reports covering the 5.8 year period January 1, 1994 through October 19, 1999. I believe the 326 proven guard climbing incidents in only 101 hospitals during the 5.42 year period represents a total of about 2400 each year in the USA.

Following is a similar tabulation of the 103 fall and jump incidents that could not be positively described as involving prior climbing.

SUMMARY OF FALLS AND JUMPS - CHILDREN 6 YEARS AND YOUNGER

FALL INCIDENTS THAT MAY OR MAY NOT INVOLVE PRIOR CLIMBING

Page No.	Child Passed Thru Opening In Guards	Child Fell Over Railing or Banister	Child Sitting on Railing or Banister	Child Swinging on Railing or Banister
51	2			1
52		3	1	1
53	1	3	1	
54	1	2		
55	4	2		
56	1	1		1
57	2	3		
58	2			1
59	2	2		
60	1			1
61	3	1		
62	1	2	1	1
63	2	2		1

TOTALS FOR PAGES 2 THROUGH 63

Child Passed Thru Opening In Guards	Child Fell Over Railing or Banister	Child Sitting on Railing or Banister	Child Swinging on Railing or Banister
64	80	8	15

Total Number of Fall incidents that May or May Not include Prior Climbing = 167

The 64 incidents describing a child climbing through an opening in a guard obviously did not involve prior climbing. The eighty incidents in which a child “ Fell Over “ a banister or railing have also not been classified as involving prior climbing because a few of the reports include the words “ Leaning Over. “ However, there is no assurance that the child involved had not already climbed up the lower part of the guard before falling over it.