



FPInnovations FORINTEK

Creating forest sector solutions

www.fpinnovations.ca



Development of an International Use Classification System

P. I. Morris

Chronology

- 1980± Hazard class systems in Australia and Nordics
- 1990 ± Europe, America, S Africa adopt similar systems
- 1992 Archer highlights trend to unification at CWPA
- 1994 Morris proposes Int'l Standard at IRG
- 1994 CEN TC 38 proposes fast track EN → ISO
- 1995 IRG sets up Working Party 2.5
- 1996 Morris proposes compromise use classes at IRG

Potential Conflicts Among Sytsems in 1996

Hazard Class/Use Category 2

- Australasia Inside house with termites
- S. Africa Inside house with termites
- Europe Inside house with moisture
- USA (original) Outside house with coating
- USA (revised) Inside house with moisture
- Japan Inside house, cool regions

Chronology

- 1980± Hazard class systems in Australia and Nordics
- 1990 ± Europe, America, S Africa adopt similar systems
- 1992 Archer highlights trend to unification at CWPA
- 1994 Morris proposes Int'l Standard at IRG
- 1994 CEN TC 38 proposes fast track EN → ISO
- 1995 IRG sets up WP 2.5 International Standardization
- 1996 Morris proposes compromise use classes at IRG
- 1996 ISO TC 165 votes to approve EN use classes
Several countries express concern
- 1997 ISO sets up TC 165 Subcommittee 1
Wood Materials: Durability and Preservation

Chronology Continued

1997	ISO TC 165 sets up Subcommittee 1
1998 Feb.	1st unofficial meeting
1998 Dec.	1st official meeting
1998-1999	Development of compromise use classes
1999-2001	Refinement of system, drafting of text
2001-2003	Attempt to fast track table and follow up with text later: Two draft standards developed
2003-2005	Drafting local roadmaps to standardization
2005	Negative votes and comments on 'final' drafts
2005-2006	Revisions made, roadmaps abandoned, two standards recombined
2007 Nov.	ISO 21887 published

Basic ISO Use Classes

Class	Service Conditions
1	Interior, dry
2	Interior, damp
3	Exterior, above ground
4	In ground
5	Marine

Use Classes 1-2 and Subdivisions for Organisms

Class	Service Conditions	Biological Agents		
1	Interior, dry	Wood boring beetles, termites	A	Wood boring beetles
			B	Wood boring beetles + termites
2	Interior, damp	Beetles, Stain fungi, Decay fungi, termites	A	Decay fungi
			B	Decay fungi + termites

ISO Use Classes 3-4 and Subclasses of Exposure

Class	Subclass	Service Condition
3	3.1	Exterior, above ground, protected from weather.
	3.2	Exterior, above ground, un protected from weather.
4	4.1	In ground
	4.2	In ground, severe, fresh water

Use Class 5 and Subdivisions for Organisms

Class	Service Condition	Biological Agents		
5	Marine	Beetles, Stain fungi, Decay fungi, + Marine borers	A	Teredinids + Limnoria
			B	Teredinids + creosote tolerant Limnoria
			C	Teredinids, creosote tolerant Limnoria + Pholads

Important Footnotes to the Table

- A higher use class may be assigned if it is anticipated that service conditions can arise that result in a higher risk to the timber than that normally experienced by the typical uses listed.
- It might not be necessary to protect against all biological agents listed as they may not be present or economically significant in all service conditions in all geographic regions.

Impact

- Canada's revised standards, using the ISO system were published in March 2008
- Discussions are underway in Europe and Japan around adoption of the ISO system
- Other parts of the world – not so much
- Adoption of the ISO system would reduce confusion in trade between regions.
- The scale of trade does not warrant a complete set of international standards

Acknowledgements

- Tony Bravery UK
- Angus Currie South Africa
- Alain Demange France
- Harry Greaves Australia
- Manfred Grinda Germany
- Gerald Ozanne CEN TC 38
- Mick Hedley New Zealand
- Joran Jermer Sweden
- Alan Preston USA
- John Ruddick Canada
- Kentaro Suzuki Japan
- Alex Valcke Belgium
- Henry Walthert Secretariat

Any Questions

