Rev: September 24, 2010
September 3, 2009
November 6, 2008

Subject: Consolidated North American Standard for Wearable PFDs – Work-Plan

Project Goal:

Develop a consolidated North American standard for wearable flotation aids and lifejackets based on the new principles developed in the reclassification project and select parts of the existing UL and CGSB standards, using the format and as much content as possible from ISO 12402 that both Canada and the U.S. (and potentially others) can accept without undue disruption of their approval processes.

Project Scope:

The North American standard should use the ISO standard consistent with the following:

- Implement the principles of the new knowledge gained in regards to critical performance criteria under the reclassification project, including an alternative for aggregate performance assessment;
- Hold national differences or deviations to the ISO standard to the minimum necessary to satisfy the lifesaving needs of North America (and potentially others);
- Bring the North American standards as close to the long-range goal of internationally agreed standards as possible.
- Be mindful of controlling the cost of retesting/certification associated with changing to the new standard.
- Along with capitalizing on the reclassification initiative, focus on the most cost effective ways to assure the safety of approved products.
- If necessary, the effort may initially address buoyancy/flotation aids (Type II & III PFDs) and followed by lifejackets (Type I PFDs).

Milestones:

1. Complete a final draft document(s) for use in beginning the consolidated standard balloting by ~~March 31, 2010~~ March 1, 2011
2. Publish consolidated standard and begin transitioning to certification under this standard by March 31, 2012*.

* Notes on scope and timeline – The timeline may change due to the evolving nature of the plan and the need to produce a quality standard. However, the milestones listed are believed to be achievable with a concerted effort by the task group, continued funding by the USCG and industry, and planned funding from TCMS/Canada, which should complement the effort.

Task Group:

Members: Dr. Bilal Ayyub (BMA), Mike Cunningham (UL), Marty Jackson (USCG), Chris James (UL), ~~Jean-Francois Joly (TC),~~ Paul Potter (Cord), Robin Scott (Sport Dimension), Ravi Shankar (TC), Larry Spears (Helly-Hansen, CA), Ralph Steger (IMANNA ~~Coleman~~), Dorothy Takashina (TLPC), ~~David Toshack (ULC),~~ Wayne Walters (Kent), and Sam Wehr (Mustang)

Information members**:

(TBD - to be developed) . . .

** Guidelines for information members are to be developed, but basically these members are to receive documents and may attend meeting (or teleconferences) but should not offer comments directly, in order that the group need not regress. Comments and questions may be directed to members any time outside of meetings.

Reporting:

Post reports on website . . . (TBD)

Specific Steps: (continued next page)

Specific Steps:

#	**Task**:	**Description**:	**Completion date:**
1	Review all the PFDMA inputs	Summarize all the PFDMA inputs from their survey on formation of International Harmonization Committee (IHC), and formula consensus guidelines for the consolidation effort	Completed – (Aug 15, 2008)
2	Develop the goals	Develop the goals for the standard/project and form consensus for the scope	Completed – (Aug 15, 2008)
3	Complete draft plan	Formulate a complete draft plan for circulation to the interested stakeholders for comment. (The planned schedule should be forwarded to the PFDMA Board by the end of September.)	Completed – (Aug 31, 2008)
4	Identify the principles	Identify the principles for the requirements in the consolidated standard consistent with the reclassification and risk-based tools efforts; including aggregate performance provisions (Draft the principles for the existing UL standard by Sept 15; after which the new (e.g., heave period, placement security) and the Canadian standards parameters will be added. Larry agreed to be the point of contact for the Canadian portions working with David & Paul)	Oct 15, 2008 Completed – (May 5, 2009)
5	Obtain written input on project work plan	Obtain CGSB, TCMS, UL, ULC, and USCG written positions on the project scope, the importance for the standard effort, and anticipated participation in this effort (Completion date may be dependent on TCMS proposed statement of work completion.)	Completed – (Dec 31, 2008)
6	Develop preliminary ranks of proposed requirements	Develop preliminary rankings of the importance/value of the various proposed requirements using the risk-based tools through sensitivity analysis that produced rankings of the principles. The ranks will be used to draft any proposed difference for the NA stds (Completion date may depend on establishing measurement methods/techniques for parameters such as heave period, placement security, wearability, and detectability. The final rankings (item 11) will be developed at a workshop for expert elicitation) The rankings will have implications for the ISO standards and our propose to them	~~Jan 31, 2009~~ ~End of Oct '09 Completed – (Jan 31, 2010)
7	Obtain stakeholder input on principles and ranking	Obtain stakeholder input on principles and ranking including STP, manufacturers, laboratories, regulatory bodies, CGSB, etc. written	~~Mar 31 09~~ ~End of Nov '09
8	Transition plan	Develop a reasonable transition plan based on the anticipated costs and equivalence of the level of safety between the old and new standards.	~~June 1, 2009~~ Beginning of balloting period
9	Identify acceptable ISO 12402 parts	Identify the parts of the ISO 12402 Standard, if any, that can be adopted with minimal national differences that parties to the standard can accept without undue disruption of their country's approval processes or draft new part (see step 13)	~~July 1, 2009~~ ~Fall '09 Completed – (Sept 24, 2010)
10	Submit ISO Comments	Submit comments to ISO addressing the potential deviations to ISO Parts to be adopted and others if feasible (after the upcoming March '09 ISO meeting in London)	~Fall 2009 Completed – (Nov 19, 2009) but ongoing
11	Finalize test methods for new parameters	Finalize test methods for new parameters – ride-up freeboard, etc. (Form group(s) or enlist Drafting Group for timely completion.)	End Jan '10 ongoing

12	Rank proposed requirements – Workshop	Rank the various proposed requirements using the risk-based tools, and the sensitivity analysis and rankings of the principles. These rankings will be developed at a workshop for expert elicitation	~End of February '10 Completed – (Mar 19, 2010)
13	Draft minimum deviations	Draft necessary deviations within the identified ISO parts, including any changes needed to incorporate the reclassification effort	~~Dec 31, 2009~~ 1 Mar '10 ongoing
14	Identify IHC Staff	Identify dedicated chairman and secretary from industry and go back to industry with IHC recommendation	Feb 15, 2010 Completed – (Aug, 2010)
15	Validation of Aggregate Performance Models	The PFDRRA models will be used to evaluate both existing and newly submitted PFDs, and the results summarized and analyzed for future use (Grant Phase IV). The models and draft standard will be revised based on results of this validation. The focus of the revisions will be on the threshold values for PFD classification.	End of April 2010 ongoing
16	Draft any new Part(s)	Draft any flotation aid or lifejacket Part or Parts where the ISO standard is not suitable for adoption (as outlined in PFDMA option B***)	May 31, 2010 Complete – No new parts.
--	(Milestone 1)	Complete a draft document for use in beginning the consolidated standard balloting	~~May 31, 2010~~ Mar 1, 2011
17	Project costs & funding	Identify project costs, funding options, and initiate activity to get funding (develop as part of project plan)	~~May 31, 2010~~ (Oct 2010)
18	IHC decision	Decision on request to form International Harmonization Committee(s) (IHCs) in the respective countries (CMAC in Canada?)	May 31, 2010 Completed – (Aug 13, 2010 in US)
19	Balloting	Distribution and balloting of the proposed consolidated PFD standard. (The balloting should be initiated in ~~April 2010~~ Mar 1, 2011. Additional intermediate steps TBD.)	Mar 31, 2012
20	Publish Std(s) (Milestone 2)	Publication of the adopted standards will required a lead time (including translation to French for Canada)	Mar 31, 2012
21	Lifejackets standards if needed	If lifejacket Part(s) can't be completed concurrent with floatation aid Parts, draft a plan to complete the more intricate standards needs for classifying Lifejackets, ISO 12402-2, -3, and –4	Concurrent with balloting of above effort
22	Order of Adoption of ISO Parts	1. ISO Parts 5 & 9 2. ISO Part 6 3. ISO Parts 2, 3, & 4 4. ISO Part 8 & ISO Part 7 → comply with 1191 5. ISO Part 10 & 1	Mar 1, 2011 Mar 1, 2011 Mar 1, 2011 TBD (but rvw7) After ISO 2nd Ed.

Reference material --

PFDMA Board recommendation (May 2008) --

C. ISO harmonization – This harmonization approach would start with the principles we have identified in the reclassification project, identify which parts of the ISO standards can be made consistent with those principles, with minimal differences or deviations, to make them suitable for TC and USCG adoption. Those principles would also guide the development of the deviations necessary within those parts. While a manageable number of deviations to Parts 7 and 9 (components and test methods) are expected to allow them to provide adequate basis for the requirements within the product standards, some (or perhaps all) of the product standards themselves may require more

changes than allowed by the harmonization guidelines. Where a product Part or Parts are not suitable for adoption, an alternate Part(s) might need to be drafted. This option to harmonize is not simply adopting the ISO 12402 with deviations to align with existing UL and CSGB standards.

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APPENDIX – Discussion of Options --

***** OPTION B – CREATE A NORTH AMERICAN STANDARD TO REPLACE EXISTING UL AND CGSB STANDARDS** – This approach has been referred to as starting with a "clean sheet of paper." It draws on the new research and high-level evaluation with the Risk Based Compliance (RBC) model to define the principles that will be the basis for the new standard. Based on these principles a working group would then draw from existing PFD standards (UL, CGSB and ISO) to build the new standard. The goals would be:

1. Focus on new principles
2. Evaluate based on Drowning Prevention Index (DPI)
3. Make the standard performance based. (The current standards are a combination of performance and design requirements. Design requirements are generally restrictive to innovation.)
4. Keep focus on requirements critical to lifesaving potential and wearability.
5. Format like ISO 12402. This will aid in a future transition to ISO.

RECOMMENDED OPTION

OPTION C – <u>ISO HARMONIZATION</u> - Parts of ISO 12402 will be adopted with national differences that both U.S. and Canada can accept. Transport Canada and U.S. Coast Guard want long-range movement toward ISO standards. Using this option will require us to establish an International Harmonization Committee (IHC) with a dedicated chairman and secretary from industry to facilitate the conversion. (Once established, this committee will maintain its responsibilities for the life of the standard). This harmonization process would identify those Parts of the ISO standards that are suitable for adoption and the deviations necessary within those Parts that are consistent with the reclassification and RBC efforts. The suitable Parts would be identified after determining the scope of the national differences/deviations necessary for North American use of those Parts without massive disruption of the Canadian or US approval processes. Where a Part or Parts are not suitable for adoption, an alternate Part might need to be drafted as outlined in option B. Along with identifying the differences needed for Parts 7 and 9 (components and test methods) of the ISO standard, initial steps would be to proceed with the reclassification effort to determine if the product approval Parts of ISO (such as Parts 5 & 6) can be adopted. Once completed, more intricate needs for classifying Lifejackets, ISO 12402-2, -3, and -4 would need to be undertaken. UL, USCG, ULC, and CGSB will cooperate in this effort. This option to harmonize is not simply adopting the ISO 12402 with differences to existing UL and CSGB standards, but an effort to implement the new knowledge gained in regards to critical performance criteria using as much of the testing and components Parts of ISO 12402 as possible.

As recommended by the Task Group working on these various standards issues, the PFDMA Board recommends Option C. This is the recommended option because, along with capitalizing on the initiatives addressed in the cover letter, this approach takes the North American standards effort as close to the long-range goal of internationally agreed standards as will be possible without undue disruption of the Canadian or US approval processes.

Additional background explanation of the ISO 12402 series can be found in the STP Report file (4 - 080208a-STP-Rpt-Consolidated Standard Outline Task Group.rtf). Also see notes showing line-by-line comparison of ISO 12402-5 and UL Standards (5 - 080114-ISO-Pt5 ConsolidatedComparisonTable.doc). These [documents] can be found on the NMMA/PFDMA web site

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