

## **Nonprofit Organization Grants:**

Coast Guard Office of Auxiliary and Boating Safety  
Recreational Boating Safety

Federal Grant Title:	National Non-Profit Organization Grant Program
Federal Agency:	United States Coast Guard
Funding Opportunity Number:	DHS-USCG-2020-001
Type of Funding:	Cooperative Agreement
CFDA Numbers:	97.012
CFDA Descriptions:	Boating Safety Financial Assistance

Grantee: American Boat & Yacht Council (ABYC)  
Grant Number: 3320FAN112002  
Grant Title: FY 2020 Voluntary Standards Development  
Period of Performance: 1 year grant

Award Amount: \$311,500.00

### **Summary:**

This grant will address Area of Interest number one found in the Notice of Funding Opportunity published on December 12, 2020. To supplement current Federal Regulations, ABYC has identified the following areas where the Standards process, and our experience in research and testing can make a difference:

1. Voluntary Standards Development a. With static regulations, a dynamic system of standards that responds to accident trends and innovation while being widely accepted by the manufacturing community must exist. Funding, in part, this ANSI Accredited standards process allows the USCG to affect change on a continuing basis without relying on regulatory change. Over 30 Standards are in the revision process during the timeframe of this grant, if awarded.
2. International Standards Involvement a. Keeping tabs on the global manufacturing and boating community provides a much-needed perspective. This activity has produced positive safety changes and extensive education for foreign manufacturers selling in the U.S. ABYC's involvement in the standards of the ISO and other national standards bodies has enabled us to improve our process by observing what is effective around the globe and what is not. Key issues such as craft stability, high-power lithium-ion batteries and electronic steering, shift and throttle will all be discussed during the timeframe of this grant.
3. Continue Support of the On-water Educational Standards a. The on-water educational standards are the responsibility of ABYC and our accredited ANSI process. This portion of the

proposal funds the ongoing review and updates for these standards. Two of these standards are scheduled to be published during the timeframe of this grant.

<https://abycinc.org/>

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## **FINAL Report – October 2022**

### **Grant # 1120.02 – Voluntary Standards Development**

NOTICE: Due to the COVID-19 pandemic, ABYC moved to remote operations on March 17, 2020. Standard development work continued with the use of remote meeting and webinar software. Because the impact of the COVID-19 pandemic during the performance period of this grant, ABYC was granted a no cost performance period extension.

### **Executive Summary**

ABYC successfully executed the grant titled Voluntary Standards Development. This grant supported the review and revision of existing voluntary standards, and the development of new standards when needed, to assure all potential and existing safety concerns are addressed and to keep current with technology and updated manufacturing processes. Methods focused on voluntary standards development and coordination. Twenty-nine (29) ABYC standards and technical information reports were revised and published and thirty-nine (39) ABYC standards and technical information reports initiated review, continued review, or began development. In supporting ABYC's role as the Technical Advisory Group (TAG) for ISO TC-188, ABYC coordinated US participation and attended numerous events and reviewed over 80 draft ISO standards and resolutions. Additionally, ABYC attended, presented, or liaised with over thirty-five (35) groups/events. Clearly, this grant supported the USCG/ABYC goal of promoting boating safety and keeping deaths and injuries as low as possible in the recreational boating arena.

### **Standards Development and Coordination**

Reducing injuries and fatalities through development of voluntary boating safety standards is the core of ABYC's mission and vision. The annual Standards Week series of meetings is key to the standards development process. The 11<sup>th</sup> Annual Standards Week, held virtually over the months of January-March 2021, hosted twelve PTCs that met for a total of 27 meetings. Because of the extended performance period, this grant also supported the 12<sup>th</sup> Annual Standards Week, which was held virtually during the week of January 10-14, 2022. Seven Project Technical Committees (PTC) met for a total of nine meetings.

These committees met at Standards Week, January-March 2021 and discussed the following standards:

#### **Aquatic Invasive Species**

T-32, *Design and Construction in Consideration of Aquatic Invasive Species*

#### **Electrical**

E-10, *Storage Batteries*

E-11, *AC & DC Electrical Systems on Boats*

E-30, *Electric Propulsion Systems*

#### **Electrical Component**

A-31, *Battery Chargers and Inverters*

C-7, *DC Battery Switches for Use on Boats*

#### **Engine & Powertrain**

A-27, *Alternating Current (AC) Generator Sets*

P-1, *Installation of Exhaust Systems for Propulsion and Auxiliary Engines*

P-6, *Propeller Shafting Systems*

#### **Fire Fighting & Detection Systems**

UL 1110, *Standard for Marine Combustible Gas Indicators*

**Fuel & Ventilation Systems**

C-1, *Primer Bulbs*  
C-2, *Carbon Canisters for Marine Applications*  
H-2, *Ventilation of Boats Using Gasoline*  
H-25, *Portable Gasoline Fuel Systems*  
H-33, *Diesel Fuel Systems*

**Hull & Deck Structures**

H-41, *Reboarding Means, Ladders, Handholds, Rails and Lifelines*

**Hull Performance**

H-5, *Boat Load Capacity*  
H-26, *Powering of Boats*  
H-28, *Inflatable Boats*  
H-29, *Canoes and Kayaks*  
S-7, *Boat Capacity Labels*  
S-8, *Boat Measurement and Weight*  
T-1, *Aluminum Applications for Boats and Yachts*

**Hull Piping**

C-1113, *Standard for Electrically Operated Pumps for Nonflammable Liquids, Marine*  
C-1193, *Standard for Marine Filters and Strainers for Nonflammable Liquids*  
H-27, *Seacocks, Thru-hull Fittings, and Drain Plugs*

**Navigation Lights & Sound Signal Appliances**

A-16, *Installation of Electric Navigation Lights*  
C-5, *Construction and Testing of Electric Navigation Lights*

**Product Interface**

S-32, *Warnings and Safety Signs for Boats*  
T-5, *Safety Signs and Labels*

**Thermal Appliance**

A-3, *Cooking Appliances*  
A-7, *Liquid and Solid Fueled Boat Heating Systems*

Additional meetings and webinars were held to discuss final balloting and preparation for the publication of the revised standards.

The following PTCs met by webinar and discussed the following standards.

**Aquatic Invasive Species** – May 2021

T-32, *Design and Construction in Consideration of Aquatic Invasive Species*

**Electrical** – May 2021

E-10, *Storage Batteries*  
E-11, *AC & DC Electrical Systems on Boats*  
E-30, *Electric Propulsion Systems*

**Electrical Component** – June 2021

C-7, *DC Battery Switches for Use on Boats*

**Engine and Powertrain** – May 2021

A-27, *Alternating Current (AC) Generator Sets*  
P-6, *Propeller Shafting Systems*

**Fuel and Ventilation** - April 2021

C-1, *Primer Bulbs*  
 C-2, *Carbon Canisters for Marine Applications*  
 H-2, *Ventilation of Boats Using Gasoline*  
 H-25, *Portable Gasoline Fuel Systems*  
 H-33, *Diesel Fuel Systems*

**Hull Performance** – May 2021

H-5, *Boat Load Capacity*  
 H-26, *Powering of Boats*  
 H-28, *Inflatable Boats*  
 H-29, *Canoes and Kayaks*  
 S-8, *Boat Measurement and Weight*  
 T-1, *Aluminum Applications for Boats and Yachts*

**Hull Piping** – May 2021

H-27, *Seacocks, Thru-hull Fittings, and Drain Plugs*

**Product Interface** – April and May 2021

S-32, *Warnings and Safety Signs for Boats*  
 T-5, *Safety Signs and Labels*

**Thermal Appliance** – May 2021

A-3, *Cooking Appliances*  
 A-7, *Liquid and Solid Fueled Boat Heating Systems*

The following subcommittees also met and discussed the following topics.

Electrical	AC & DC Breakers, E-13, Personnel Safety
Engine and Powertrain	C-1129
Fuel and Ventilation	H-33 Automatic Shutoff
Fuel and Ventilation	Semiportable Tanks
Hull Piping	UL 1121 Incorporation
EL, EP, FV	Portable Gasoline Generators
Navigation Lights and Sound Signal Appliances	A-16, C-5, Accessory Lights

ABYC completed the review process and published the following 22 standards and technical information reports as Supplement 61 on July 31, 2021.

A-3, *Cooking Appliances*  
 A-7, *Liquid and Solid Fueled Boat Heating Systems*  
 A-16, *Installation of Electric Navigation Lights*  
 A-27, *Alternating Current (AC) Generator Sets*  
 C-1, *Primer Bulbs*  
 C-2, *Carbon Canisters for Marine Applications*  
 C-5, *Construction and Testing of Electric Navigation Lights*  
 C-7, *Battery Switches For Use on Boats*  
 E-10, *Storage Batteries*  
 E-11, *AC & DC Electrical Systems On Boats*  
 E-30, *Electric Propulsion Systems (Formerly TE-30)*  
 H-2, *Ventilation of Boats Using Gasoline*  
 H-5, *Boat Load Capacity*  
 H-25, *Portable and Semi-Portable Marine Gasoline Fuel Systems*  
 H-26, *Powering of Boats*  
 H-27, *Seacocks, Thru-Hull Fittings, and Drain Plugs*  
 H-28, *Inflatable Boats*  
 H-33, *Diesel Fuel Systems*  
 P-6, *Propeller Shafting Systems*

S-8, *Boat Measurement and Weight*  
T-5, *Safety Signs and Labels*  
T-32, *Design and Construction in Consideration of Aquatic Invasive Species*

These committees met at Standards Week, January 2022 and discussed the following standards:

**Control Systems**

P-21, *Manual and Assisted Hydraulic Steering Systems*  
P-22, *Steering Wheels*

**Electrical**

E-13, *Lithium Ion Batteries*  
S-31, *Environmental Considerations for Electronic Systems and Components Installed On Boats*  
TE-12, *Three-Phase AC Electrical Systems on Boats*  
Subcommittees

**Electrical Component**

A-32, *AC Power Conversion Equipment and Systems*

**Fuel & Ventilation Systems**

H-24, *Gasoline (Petrol) Fuel Systems*  
TH-22, *Educational Information About Carbon Monoxide*  
TH-23, *Design, Construction, and Testing of Boats in Consideration of Carbon Monoxide*  
UL Standards

**Hull Performance**

H-1, *Field of Vision From The Helm Position*  
H-8, *Buoyancy in the Event of Flooding/Swamping*  
H-29, *Canoes and Kayaks*  
H-35, *Powering and Load Capacity of Pontoon Boats*  
H-37, *Jet Boats - Light Weight*  
S-30, *Outboard Engine and Related Equipment Weights*  
T-1, *Guidelines for Use of Aluminum in Boat and Yacht Construction*  
TH-12, *Outboard Engine Mounting Guide*

**On-Water Education**

EDU-1, *On-Water Recreational Boating Skills – Power*  
EDU-2, *On-Water Recreational Boating Skills – Human-Propelled*  
EDU-3, *On-Water Recreational Boating Skills – Sail*  
EDU-4, *On-Water Recreational Boating Skills – Instruction*

**Product Interface**

S-32, *Warnings and Safety Signs for Boats*  
T-31, *Marine Law Enforcement Craft Acquisition and Safety*

Additional meetings and webinars were held to discuss final balloting and preparation for the publication of the revised standards.

The following PTCs met and discussed the following standards.

**Electrical** – April and May 2022

E-13, *Lithium Ion Batteries*  
S-31, *Environmental Considerations for Electronic Systems and Components Installed On Boats*  
TE-12, *Three-Phase AC Electrical Systems on Boats*

**Electrical Components** – May 2022

A-32, *AC Power Conversion Equipment and Systems*



**Fuel and Ventilation** – May 2022

H-24, *Gasoline (Petrol) Fuel Systems*

TH-22, *Educational Information About Carbon Monoxide*

TH-23, *Design, Construction, and Testing of Boats in Consideration of Carbon Monoxide*

**Hull and Deck Structures** – March and April 2022

H-41, *Reboarding Means, Ladders, Handholds, Rails, and Lifelines*

**Hull Performance** – March and April 2022

H-8, *Buoyancy in the Event of Flooding/Swamping*

H-29, *Canoes and Kayaks*

H-35, *Powering and Load Capacity of Pontoon Boats*

H-37, *Jet Boats - Light Weight*

S-30, *Outboard Engine and Related Equipment Weights*

T-1, *Guidelines for Use of Aluminum in Boat and Yacht Construction*

TH-12, *Outboard Engine Mounting Guide*

**Hull Piping** – February and May 2022

H-30, *Hydraulic Systems*

**On-Water Education** – June 2022

EDU-3, *On-Water Recreational Boating Skills – Sail*

EDU-4, *On-Water Recreational Boating Skills – Instruction*

**Navigation Lights and Sound Signal Appliances** – June 2022

A-16, *Installation of Electric Navigation Lights*

C-5, *Construction and Testing of Electric Navigation Lights*

The following subcommittees also met and discussed the following topics.

Control Systems	Hybrid Steering Systems, P-28 Testing
Electrical	E-13, Personnel Safety, Isolated DC Systems, Electric Propulsion, Circuit Breakers, S-31, Wire Sizing
Electrical Components	Battery Switches
Fuel and Ventilation	UL Standard
Hull and Deck Structures	H-41
Hull Performance	H-8, H-29, H-35, T-1
Hull Piping	C-1193
Product Interface	Graphical Symbols
Thermal Appliance	Gasoline Heaters

ABYC completed the review process and published the following 28 standards and technical information reports as Supplement 62 on July 31, 2022.

New Standards and Technical Information Reports

E-13 (Formerly TE-13), *Lithium Ion Batteries*

S-32, *Warnings and Safety Signs for Boats*

T-33, *Manufacturer's Statement of Origin*

Revised Standards and Technical Information Reports

A-32, *AC Power Conversion Equipment and Systems*

C-3, *Alcohol, Kerosene and Solidified Fuel Cooking Appliances*

EDU-2, *On-Water Recreational Boating Skills – Human-propelled*

EDU-3, *On-Water Recreational Boating Skills – Sail*

EDU-4, *On-Water Recreational Boating Skills – Instruction*

H-8, *Buoyancy In The Event Of Swamping*

H-24, *Gasoline (Petrol) Fuel Systems*  
 H-29, *Canoes and Kayaks (limited scope review)*  
 H-30, *Hydraulic Systems*  
 H-35, *Powering and Load Capacity of Pontoon Boats*  
 H-37, *Jet Boats - Light Weight*  
 H-41, *Reboarding Means, Ladders, Handholds, Rails and Lifelines*  
 P-21, *Manual and Assisted Hydraulic Steering Systems*  
 P-23, *Mechanical Steering and Propulsion Controls For Jet Boats*  
 S-30, *Outboard Engine and Related Equipment Weights*  
 S-31, *Environmental Considerations for Electronic Components Installed On Boats*  
 T-1, *Guidelines for Use of Aluminum in Boat and Yacht Construction*  
 T-31, *Marine Law Enforcement Craft Acquisition and Safety*  
 TE-12, *Three Phase AC Electrical Systems on Boats*  
 TH-12, *Outboard Engine Mounting Guide*  
 TH-22, *Educational Information About Carbon Monoxide*  
 TH-23, *Design, Construction, and Testing of Boats in Consideration of Carbon Monoxide*

Revised Recommended Compliance Date  
 A-16, *Installation of Electric Navigation Lights*  
 C-5, *Construction and Testing of Electric Navigation Lights*  
 E-11, *AC and DC Electrical Systems on Boats*

Both the Technical Board and the Division Directors held meetings in the fall of 2020 (virtual), fall 2021 (virtual), and fall of 2022 (virtual). Highlights of the Technical Board meetings included discussion on definition of an organization, accident trends, standardizing temperatures in the standards, operator responsibility, sustainability, graphical symbols, and use of the word "petrol." Other topics addressed include tolerances, PTC procedures, testing protocols, harmonizing definitions.

Upgrades and enhancements continue on the Standards Library. The system has shown great functionality and has been very well received. ISO standards continue to be offered via a subscription model developed specifically for this purpose.

### **Area of Interest**

#### **1. On-water instructional standards**

COVID-19 pandemic restricted the use of in-person meetings. As a result, public member travel funds may be used in an alternative manner to facilitate and support the review of the on water skills standards.

Completed the systematic review of EDU-1, EDU-2, EDU-3, and EDU-4. . EDU-1 published December 2022 and EDU-2, 3, and 4 published July 2022.

### **Outreach**

The following liaison meetings and industry events were attended from September 2020 – Sept 2022:

ABYC Standards Week 2021, 2022  
 ANSI Legal Issues Forum  
 ANSI Procedural webinars  
 ANSTF meetings  
 BIRMC meetings  
 Central Atlantic Surveyors Conference - presentation  
 Future of Marine Propulsion Technology webinar  
 IBEX conference  
 Presented at IBEX virtual conference.  
 ICOMIA Technical Committee  
 IMCI inspectors meeting



International Boating and Water Safety Summit – presentation  
 NASBLA ERAC committee meetings  
 NBSAC meetings  
 NFPA 921 Task Force  
 NMMA American Boating Congress  
 NMMA BYCC Task Force meeting  
 NMMA Engine Manufacturer Division Board meeting  
 NMMA Engineering Compliance Seminar – Virtual Presentations  
 NMMA Engineering Compliance Seminar Question and Answer Sessions  
 NMMA EMD Board Meetings  
 NMMA EMD Technical Meetings  
 NMMA Inspectors Meetings  
 NMMA State of the Industry Webinar  
 RNLI  
 RSG Meetings  
 SAE Battery and Electrification Summit  
 SAE Marine Fuel Committee Meetings  
 SAE Marine Technical Committee Meetings  
 SAE PWC Committee  
 SAMS Regional Meeting – presentation  
 UL 217 STP Committee Meetings  
 USCG non-profit grants webinars  
 WSIA Summit  
 WSIA Towboat Committee  
 YBAA Conference – Presentation  
 YBAA University

These meetings are an essential part of the outreach efforts to ensure boating safety and the standards that are at the forefront of the industry and the boating public.

### **Voluntary Standards Coordination**

ABYC continues to be the liaison for ISO, the International Organization of Standards, in the role of the US TAG (Technical Advisory Group). ABYC and the US TAG are principle resources for the development of international standards, coordinating and submitting the US interests and comments for each document. This participation better assures that international standards mirror US standards for boating safety. It was an active period for ISO standards actions, despite the effects of the COVID-19 pandemic. The following ISO standards were under review during this grant period:

FDIS 9093	Small craft — Seacocks and throughhull fittings
CIB Resolution 2020-19	Liaison with ISO/TC 333 Lithium
CD TS 23625	Small craft — Lithium-ion batteries
CIB Resolution 2020-21	Revision of ISO 18854:2015, Small craft — Reciprocating internal combustion engines exhaust emission measurement — Test-bed measurement of gaseous and particulate exhaust emissions
CIB Resolution 2020-22	Call for experts ISO/TC 188/WG 33 LPG
FDIS 8469	Small craft — Non-fire-resistant fuel hoses
FDIS 7840	Small craft — Fire-resistant fuel hoses
CIB Resolution 2020-23	Request for Minor revision of ISO 10087:2019 Small craft — Craft identification — Coding system
CIB Resolution 2020-20	Request for Minor revision of ISO 10240:2019 Small craft — Owner's manual
CIB Res 2020-24	Appointment new Convenor ISO/TC 188/WG 2
FDIS 14946	Small craft — Maximum load capacity
FDIS 12217-1	Small craft — Stability and buoyancy assessment and categorization — Part 1: Non-sailing boats of hull length greater than or equal to 6 m
FDIS 12217-2	Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m

FDIS 12217-3	Small craft — Stability and buoyancy assessment and categorization — Part 3: Boats of hull length less than 6 m
FDIS 8847	Small craft — Steering gear — Cable over pulley systems
CIB Resolution	2021-01"2nd DIS 21487 and 9 month extension
	Small craft — Permanently installed petrol and diesel fuel tanks"
CIB Resolution 2/2021	Result Systematic rev ISO 11192:2005 Small craft — Graphical symbols
CIB Resolution 3/2021	Result Systematic rev ISO 15084:2003 Small craft — Anchoring, mooring and towing — Strong points
FDIS 11592-2	"Small craft — Determination of maximum propulsion power rating using manoeuvring speed — Part 2: Craft with a length of hull between 8 m and 24 m "
FDIS 10592	Small craft — Remote hydraulic steering systems
6017	Small Craft — Guidelines for automatic watertight ventilation shutdown system
NWIP 11591	Small craft — Field of vision from the steering position — Amendment 1: Title missing
SR 11592-1	Small craft — Determination of maximum propulsion power rating using manoeuvring speed — Part 1: Craft with a length of hull less than 8 m
SR 16315	Small craft — Electric propulsion system
DIS 9650-1	Small craft — Inflatable liferafts — Part 1: Type I and II
CIB Resolution 2021/4	Dissolvement of ISO/TC 188/AG 2
CIB Resolution 2021/5	Creation of a new WG for ISO 11591:2020/Amd 1
DIS 9650-1	Small craft — Inflatable liferafts — Part 1: Type I and II
2nd DIS 21487.2	Small craft — Permanently installed petrol and diesel fuel tanks
SR 13342:1995 (vers 5)	Small craft — Static thrust measurement for outboard motors
SR 13591:1997 (vers 4)	Small craft — Portable fuel systems for outboard motors"
SR 13592:1998 (vers 5)	Small craft — Backfire flame control for petrol engines
SR 14895:2016 (Ed 2)	Small craft — Liquid-fuelled galley stoves and heating appliances
SR 15584:2001 (vers 4)	Small craft — Inboard petrol engines — Engine-mounted fuel and electrical components"
SR 6185-1:2001 (vers 4)	Inflatable boats — Part 1: Boats with a maximum motor power rating of 4,5 kW
SR 6185-2:2001 (vers 4)	Inflatable boats — Part 2: Boats with a maximum motor power rating of 4,5 kW to 15 kW inclusive
SR 8665:2006 (vers 3)	Small craft — Marine propulsion reciprocating internal combustion engines — Power measurements and declarations
CIB Resolution 2021/6	Request for Minor revision of ISO 8848:2020 Small craft — Remote mechanical steering systems
2nd DIS 21487.2	Small craft — Permanently installed petrol and diesel fuel tanks
CIB Resolution 2021/10	Amendment for ISO 25197:2020 Small craft — Electrical/electronic control systems for steering, shift and throttle
CIB Resolution 2021/11	Amendment for ISO 13297:2020 Small craft — Electrical systems — Alternating and direct current installations
FDIS 10088 (Ed 5)	Small craft — Permanently installed fuel systems
CIB Resolution 2021/7	Amendment for ISO 12216:2020 Small craft — Windows, portlights, hatches, deadlights and doors — Strength and watertightness requirements
CIB Resolution 2021/8	Amendment for ISO 15083:2021 Small craft — Bilge-pumping systems
SR 6185-4:201	Inflatable boats — Part 4: Boats with a hull length of between 8 m and 24 m with a motor power rating of 15 kW and greater
FDIS 10087 (Ed 5)	Small craft — Craft identification — Coding system
CIB Resolution 2021/12	Amendment for ISO 11591:2020 Small craft — Field of vision from the steering position
CD 11591:2020	Small craft — Field of vision from the steering position — Amendment 1: Title missing
FDIS 10087 (Ed 5)	Small craft — Craft identification — Coding system
CIB Resolution 2021/13	N 2149 Revision of ISO 16315:2016, Small craft — Electric propulsion system
DIS 13297	Small craft — Electrical systems — Alternating and direct current installations AMENDMENT 1

DIS 12216	Small craft - Windows, portlights, hatches, deadlights and doors - Strength and watertightness requirements - Amendment 1
DIS 15083	Small craft — Bilge-pumping systems — Amendment 1
DIS 25197:2020/ DAmd 1	Small craft — Electrical/electronic control systems for steering, shift and throttle — Amendment 1
CIB Resolution	Call for experts - Revision on ISO/IEC 16315
CIB Resolution 16315	Small craft — Electric propulsion system – US Experts for JWG 1
CIB Resolution 118121 Amd 1	Small craft — Watertight or quick-draining recesses and cockpits — Amendment 1
SR 12215-9	Small craft — Hull construction and scantlings — Part 9: Sailing craft appendages
Minor Revision 8848	Small craft — Remote mechanical steering systems
CD 10239	Small craft — Liquefied petroleum gas (LPG) systems
FDIS 9650-1	Small craft — Inflatable liferafts — Part 1: Type 1 and type 2
CD 6185-3	Inflatable boats — Part 3: Boats with a hull length less than 8 m with a motor rating of 15 kW and greater
ISO CD 6185-3	Inflatable boats - Part 3
ISO WD 8665-2	Power measurements and declarations — Part 2: Electric marine propulsion
ISO FDIS 9650-1	Small craft - Inflatable liferafts - Part 1: Type I and II
ISO CD 10239	Small Craft-Liquefied petroleum gas (LPG)
ISO 11591:2020/ D Amd 1	Field of vision from the steering position — Amd 1
ISO DIS 12216	Windows, portlights, hatches, deadlights, doors - Amd 1
ISO FDIS 13590	Personal watercraft
ISO DIS 13297	Electrical systems - Amd 1
ISO CD 15085	Man overboard
ISO CD 6017	Automatic watertight ventilation shutdown system
ISO DIS 6185-3	Inflatable boats - Part 3
ISO DIS 8665-2	Power measurements and declarations — Part 2: Electric marine propulsion
ISO FDIS 9094	Owner's manuals
ISO CD 10239	Small Craft-Liquefied petroleum gas (LPG)
ISO 11591:2020/D Amd 1	Field of vision from the steering position — Amd 1
ISO FDIS 13297/D Amd 1	Electrical systems - Amd 1
ISO CD 15085	Man overboard
ISO FDIS 21487	Permanently installed petrol and diesel fuel tanks

ABYC Staff also attended and coordinated the US position at the 2021 and 2022 ISO Plenary meetings held virtually due to the COVID-19 pandemic. Additional ISO meetings attended include:

CEN TC 464 in 2021 and 2022

ISO management meetings, - Monthly in 2021 and 2022

US Experts participated in other International Technical meetings including:

International Council of Marine Industry Associations – ICOMIA Technical Committee meetings 2020 and 2021

RSG Meetings in 2021 and 2022

RCD Review 2022 - Evaporative Emissions

RCD Review 2022 - Design Categories

ANSI ISO Training Mar 2021

TC-188 Working Group meetings were held virtually in 2020, 2021, and 2022 including:

AG 1  
AHG 1  
JWG 1

WG 2  
WG 3  
WG 5

WG 7  
WG 9  
WG 5  
WG 20  
WG 27

WG 31  
WG 32  
WG 33  
WG 34  
WG 35

US Technical Advisory Group (TAG) to TC-188 Small craft met monthly via webinar to confirm the US position on ISO documents.

### **Support of USCG Office of Boating Safety**

ABYC provided support to the USCG Office of Boating Safety in the following activities:

Completed technology enhancements to support USCG meeting activities and improved virtual and hybrid meeting options.

Conducted planning for the next USCG Risk Mitigation event

Hosted USCG Risk Mitigation series

Hosted NBSAC Virtual Meetings

Hosted NBSAC Hybrid Meeting

Hosted several meetings with USCG staff.

Provided feedback on USCG "final" boat test procedures for Outboard over 2 hp boats

Provided proposal on boat length for USCG review

Provided support for testing of powering and capacity for powered SUP

Provided USCG overview of electric propulsion standards and Lithium battery technical information report.

Reviewed flotation and capacity testing protocols

### **Other**

Annual ANSI membership fees were paid assuring that ABYC standards are developed efficiently and according to the accredited processes.