SMB/3248/R

STRATEGIC POLICY STATEMENT

IEC/TC or SC	Secretariat	Date
TC 18 and SC18A	NORWAY and FRANCE	2006-03-27

Please ensure this form is annexed to the Report to the Standardization Management Board if it has been prepared during a meeting, or sent to the Central Office promptly after its contents have been agreed by the committee.

Title of TC

TC 18 - ELECTRICAL INSTALLATIONS OF SHIPS AND OF MOBILE AND FIXED OFFSHORE UNITS and SC18A CABLES AND CABLE INSTALLATIONS

A. Background

Date of establishment: TC18 - 1927.

The IEC Committee of Action, during its meeting in Bellagio in 1927, decided to nominate a specific Advisory Committee to study the questions relating to the standardization of electrical installations in ships.

This decision was taken as a result of a proposal made by the Netherlands National committee to undertake the said study. The British National committee was asked to act as Secretary and the President was authorized to designate the National Committees to be invited to take part in the work.

The complete history of TC18 up to its 60th. Anniversary is recorded in a book entitled "**TC18 1935 to 1995 60 Years"** written by Mr Kees Donkervoort and presented to the Committee at its Plenary meeting in Stockholm in 1996.

Scope:

"To prepare standards for electrical installations of ships and of mobile and fixed offshore units, incorporating good practice and co-ordinating as far as possible existing regulations and IEC Publications.

The standards will form a code of practical interpretation and amplification of the requirements of the International Convention on Safety of Life at Sea, a guide for future regulations may be prepared by Administrations, and a statement of practice for use by builders and appropriate organizations.

The standards will chiefly concern:
a) factors promoting the safety of ships and of mobile and fixed offshore units;
b) factors promoting safety of life.

The standards will foster interchangeability of parts and ease of procuring equipment by indicating standards of ratings, types, dimensions, quality, test methods, etc., whether or not these are influenced by regulations, and will thus facilitate interchanges between purchaser and supplier."

The scope has been proposed to be changed according to the decisions taken in the TC18 meeting in Delft 2005 and to include the scope and mandate of SC18A.

TC18 Current Maintenance Teams and Working groups

MT1 Maintenance of IEC 60092-101, -201, -202, -204, -401 and IEC 61363
MT2 Maintenance of IEC 60092-301, -303, -304, -305, -306 and -307
MT3 Maintenance of IEC 60092-502 and -506

MT4 SOLAS (Safety of Life at Sea). MT4 inform all MT on relevant IMO changes was disbanded. To be covered by the other MTs.
MT16 Maintenance of IEC 60092-504 to be disbanded.
MT18 Maintenance of IEC 61892-1, -2, -3, -5, -6, and -7. PT in developing the IEC 61892-4.
MT21 Maintenance IEC 60533.
MT22 Maintenance of IEC 60092-507.
MT24 Maintenance of IEC 60092-501 and -503, Part 503 in maintenance and to be followed up by MT1.
MT25 Maintenance of IEC 60092-302 and -508 to be disbanded. Technical contents to be covered by MT2.

The MTs was rearranged based upon the proposal from the Ad Hoc Group for Rearrangement without any technical changes into a more simple form of the IEC 60092-series (PT3) set up at the TC18 meeting in Firenze 2001.

TC18 future Maintenance Teams will be as follows:
MT1 Maintenance of the Part 1 Section 1 of the general standard IEC 60092-1.
MT2 Maintenance of Part 1 Section 2 of the general standard of IEC 60092-1.
MT3 Maintenance of IEC 60092-502/-506
MT18 Maintenance of IEC 61892-1/61892-3/-61892-5/-61892-6/-61892-7
MT21 Maintenance IEC 60533
MT22 Maintenance of IEC 60092-507
MT24 Maintenance of IEC 60092-501/60092-503.

Subcommittee 18A: CABLES AND CABLE INSTALLATIONS
Terms of reference of SC18A

Within the scope of TC18, to prepare standards for electric cables and their installations.

SC18A Current and future Maintenance Teams and Working groups
MT 1 Maintenance of IEC 60092-350, -351, -352 and -359
MT 2 Maintenance of IEC 60092-353, -354, -373, -374, -375, -376, -377 and -390

Number of publications Issued (Current)
TC18 26
SC18A 11

Number of Projects in Development.

	Maintenance	**New**
TC18	8	1
SC18A	2	0

List of participating "P" members
TC18 20 members include Canada; China; Denmark; Finland; France; Germany; Italy; Japan; Netherlands; Norway; Poland; Portugal; Romania; Russian Federation; Sweden; USA; UK; Yugoslavia and Korea.

SC18A 19 members as TC18 above with the addition of Spain.

Liaisons and Dependencies.
IEC/ TC17 Switchgear and controlgear
IEC/SC31J Classification of hazardous areas and installation requirements
IEC/TC64 Electrical installations and protection against electric shock
IEC/TC77 Electromagnetic compatibility
IEC/TC80 Maritime Navigation and Radiocommunication Equipment/Systems.
ISO/TC8 Ships and Marine Technology.
ISO/TC67 Materials, Equipment and Offshore Structures for Petroleum and Natural Gas Industries.
ISO/TC188 Small Craft.

IMO	International Maritime Organization.
IACS	International Association of Classification Societies (IACS/EL).
IEEE/IMIC	Institution of Electrical and Electronic Engineers/International Marine Industry Committee

B. Environment

B.1 Business environment

Ships

Currently the most important technical developments in the shipbuilding industry relate to the increasing extensive use of computer hardware and software control and monitoring systems resulting in distributed machinery control. The introduction of additional and more sophisticated passenger/crew safety systems including addressable fire alarm and low level lighting systems, also passenger and crew address systems.

For this reasons, fire performances as Fire Retardancy, Fire resistance, Low smoke, No corrosivity, Halogen free materials are more requested.

There is a growing awareness of the effects of electromagnetic interference and much discussion and effort is going into the development of comprehensive EMC standards.

The industry is experiencing a return to electric propulsion systems which has resulted from the development of power electronics. A move to variable speed auxiliary drives is also being seen for the same reasons.

As the electrical power requirements of modern ships continues to increase there is a trend to higher operating voltages for power consumers, propulsion and machinery auxiliaries.

In economic terms the investment in the electrical equipment and installation on new ships continues to increase as a percentage on the overall value of the vessel.

Ship owners, Builders, Insurers and other Authorities are interested in consistent standards for electrical installations and shipboard cables, IEC 60092 series of standards satisfies this requirement.

The philosophy applied above to the requirements for ships is equally applicable to the offshore Industries and therefore TC18 is striving to complete IEC 61892 which is a seven part standard specifically for the international offshore industry.

It should be noted that TC18 has established a formal relationship with the IMO with the scope to collaborate with this Organization in the field of electrical systems on board of ships and offshore units.

B.2 Market demand

The IEC 60092 series of standards for which TC18 is responsible is referenced in the IMO - Safety of Life at Sea Convention (SOLAS).

SOLAS is applicable to all commercial seagoing ships of 500 gross tonnes and above, thus the standards are used extensively internationally. For commercial ships below this level the mandatory requirements for electrical installation is usually set by the National Flag State Authority where the ship is registered. Many such Authorities world-wide rely on the IEC 60092 standards in preference to developing their own standards.

The IEC 60092 series of Standards are employed world-wide by ship owners, ship builders/repairers, Underwriters, Lawyers and Statutory Authorities.

The TC and SC have representation from most of the industries and Authorities that it serves.

Obtaining participation on the committee and working groups is not easy.

As stated above the Standards often replace the Statutory Authority documents which are the only competing documents.

As technology continues to advance there will remain a need for the TC/SC to produce new standards and to maintain the existing ones.

B.3 Trends in technology and trade

Shipping

The trends in shipping are to a continuance of the current ship types coupled with the introduction of larger container and passenger ships, the introduction of High speed vessels of a variety of types and sizes with the accompanying requirements for reduction in weight of all installed machinery and systems including the electrical installation.

The increase in the size of vessels and of the installed electrical load in leading to the use of higher voltage systems. The return to electric propulsion systems coupled with the advances in solid state power devices and the need for variable speed auxiliary drives has lead to more strict control of EMC which is reflected in the extensive updating of the TC's EMC standard.

SC18A is developing a new standard (Guidance on the selection of cables for telecommunications and data transfer including radio-frequency cables) including fibre optic cables.

Offshore Units

Most of the technical comments above apply equally to offshore units including the requirements of SOLAS in respect of some mobile units.

At the request of the offshore industries of many countries, work commenced many years ago on a system standard for offshore units. The work is now proceeding at a fast pace.

TC18 is developing a seven part standard - IEC 61892, Part 1, Part 2, Part 3, Part 5, Part 6 and Part 7 are published. Part 4 is under development (CDV-stage).

SC18A is merging IEC 60092-351 and -359 in including Mud resistant material for sheathing.

B.4 Ecological environment

TC18 is primarily concerned with the installation of electrical equipment, the ultimate disposal of the installation on board the ship or offshore unit is beyond the scope of the committee.

SC18A is primary concerned with the manufacturing and installation of shipboard cables equipment.

However, the committees is conscious of the need to protect the environment and thus strive to ensure that the materials employed in the installations are ecologically friendly and cause the minimum of pollution possible.

C. Work programme

C.1 Current work

TC18 Priorities

The priorities for TC18 are to maintain the IEC 60092 suite of standards up to date and to complete the current work as early as possible.

The main new work agreed is to develop a general standard, IEC 60092-1, for electrical installations in ships. The maintenance of the standards involved in IEC 60092-1 continues according to the approved maintenance cycles.

SC18A Priorities

Review of IEC 60092-350 and -353.

New standard for cables for telecommunications and data transfer including radio-frequency.

Merge IEC 60092-351 and -359.

C.2 Resources/infrastructure needed

TC18 currently has reduced the number of MTs from 10 to 7, see item A above.
Its Sub Committee SC18A has one MT by the merging their two MTs onto a single MT2.
See section E for proposed maintenance plan.

C.3 Safety aspects (only for committees which do not have a reference to safety in their scope)

D. Future work

To complete the current work load, deal with the items referred to in the priorities stated above and to ensure that the IEC 60092 suite, 61892 suite and other standards the TC18 is responsible for are kept up to date as indicated in the maintenance plan. The committee will also review the developing technologies relating to the industries served and ensure that their needs are served. When new work is proposed or a need is identified the committee will react as necessary.

E. Maintenance cycle

Publication no.	Date of publication	Review date	Maintenance result date	Responsibility (Maintenance Team)
TC18 Maintenance				
IEC 60092-501Ed. 4.0	1984-09	2002	2006	MT 24
IEC 60092-503 Ed. 1	1975-01	2002	2006	MT 24
IEC 60092-504Ed. 4.0	2005-03	2005	2006	MT 16
IEC 60092-507Ed. 2.0	2000-02	2003	2006	MT 22
IEC 61892-3 Ed. 1	1999-02	2002	2006	MT 18
IEC 61892-5 Ed. 1	2000-08	2003	2006	MT 18
IEC 61892-6 Ed. 1	1999-02	2002	2006	MT 18
IEC 61892-7 Ed. 1	1997-05	2002	2006	MT 18
SC18A Maintenance				
IEC 60092-350 Ed 2	2001-06	2005	2006	MT2
IEC 60092-370 TS	New		2007	PT

Name or signature of the secretary

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