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.

A. STATE TITLE AND SCOPE OF TC

Electric welding

To prepare standards for electrical safety, EMC and EMF matters related to the construction, installation and use of equipment for electric welding and allied processes in both normal and adverse welding environments, taking into account all safety aspects for protection against electrical and mechanical hazards for professional and non professional use and all aspects to protect the environment. All electric welding processes are covered except electromagnetic processing.

B. MANAGEMENT STRUCTURE OF THE TC

Actual structure:
TC 26 - Electric welding
TC 26/WG 1 - Safety requirements for electric welding equipment
TC 26/WG 5 - EMC and EMF requirements for electric welding equipment

C. BUSINESS ENVIRONMENT

a) Strong competition between the manufacturers world wide.
b) The input of the experts from ISO and IEC will result in standards that will be accepted by both organisations and will normally become harmonised European Standards as basis for CE-marking.

The development of the IEC 60974 series in the field of arc welding and IEC 62135 series in the field of resistance welding equipment has been achieved by involvement of representatives from: ANSI; AWS; NEMA; UL; CSA and JWES. The interest of Canada, Japan, Mexico, China, Australia and USA to use international standards has been accomplished. Other countries worldwide are encouraged to adopt this IEC 60974 series.
c) Co-operation between IEC TC 26, and CISPR/B and experts from CENELEC/TC26A and 26B and TC 210 leads to consideration of existing problems and results e.g. in 60974-10, 62135-2 and CISPR 11.
d) The EC Directive on electromagnetic fields was published in June 2013. Hence, exposure limits exist in the European Economic Area. By parallel voting with CENELEC, the IEC62822-series of standards provides data to show compliance to relevant regulations.

b) Increasing industry demands due to IoT and Industry 4.0 in regard to communication result in collaboration with ETSI. This effort will assist in our product compliance with EC-Radio Equipment Directive.

• Increasing use of computer controlled equipment will improve the welding process.
• The hereby achieved improved procedures will result in high quality and less waste output.
• Fumes and spatter will be reduced to a minimum.
• A reduction in energy consumption achieved by the use of inverters will not reduce work efficiency.
• Work safety and health conditions will be highly improved.
D. **Market Demand**

- Members: manufacturers of equipment, users and authorities, e.g. shipyards, nuclear plants, car and other industries, they are represented on national basis through national delegates.
- Authorities should be more represented.
- Wide use, increasing; competing standards decreasing, e.g. in US, CA, CN, JP, AU.
- Need for development, see projects.
- Because of the principle of arc and resistance welding there is a need for specific requirements, e.g. EMC and EMF standards.

The JISC (Japan), ANSI (US), ANCE (Mexico) and CSA (Canada) support the adoption of standards prepared by TC 26.

E. **Trends in Technology and in the Market**

Process controlled equipment to optimize the weld quality and efficiency of welding power sources.

Less costly but reliable equipment. Preprogrammed or program-selection desired. More automation applied.

F. **Systems Approach Aspects (Reference - AC/33/2013)**

- IEC TC1  Terminology
- IEC TC27  Industrial electroheating
- IEC TC77A  EMC - Low frequency phenomena
- IEC SC3C  Graphical symbols for use on equipment
- CSIPR/B  Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy)industrial equipment to overhead power lines, to high voltage equipment and to electric traction
- CISPR/H  Limits for the protection of radio frequencies
- ISO/TC44  Welding and allied processes
- TC44/SC6  Resistance welding and allied mechanical joining
- TC44/SC9  Health and safety
- TC44/SC10  Quality management in the field of welding
- IIW  International Institute of Welding
- ETSI  European Telecommunications Standards Institute

G. **Conformity Assessment**

None

H. **Horizontal Issues**

TC26 is currently monitoring eco-design developments in Europe.
## I. 3-5 Year Projected Strategic Objectives, Actions, Target Dates

<table>
<thead>
<tr>
<th>Strategic Objectives 3-5 Years</th>
<th>Actions to Support the Strategic Objectives</th>
<th>Target Date(s) to Complete the Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy efficiency</td>
<td>Modify IEC60974-1</td>
<td>2021</td>
</tr>
<tr>
<td>Radio communication</td>
<td>Implementation of radio communication</td>
<td>2020</td>
</tr>
<tr>
<td>Validation/Quality Assurance for welding</td>
<td>Create new standard</td>
<td>2020</td>
</tr>
</tbody>
</table>

Note: The progress on the actions should be reported in the RSMB.