



INTERNATIONAL INSTITUTE OF WELDING

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Commission XVIII

Quality Management in Welding and Allied Processes

AGENDA (Draft)

74th Annual Assembly

(July 15 + 16, 2021)

XVIII-308-2021

Robert E. SHAW, Jr., PE
Chair
Steel Structures Technology Center, Inc.
Howell, Michigan USA

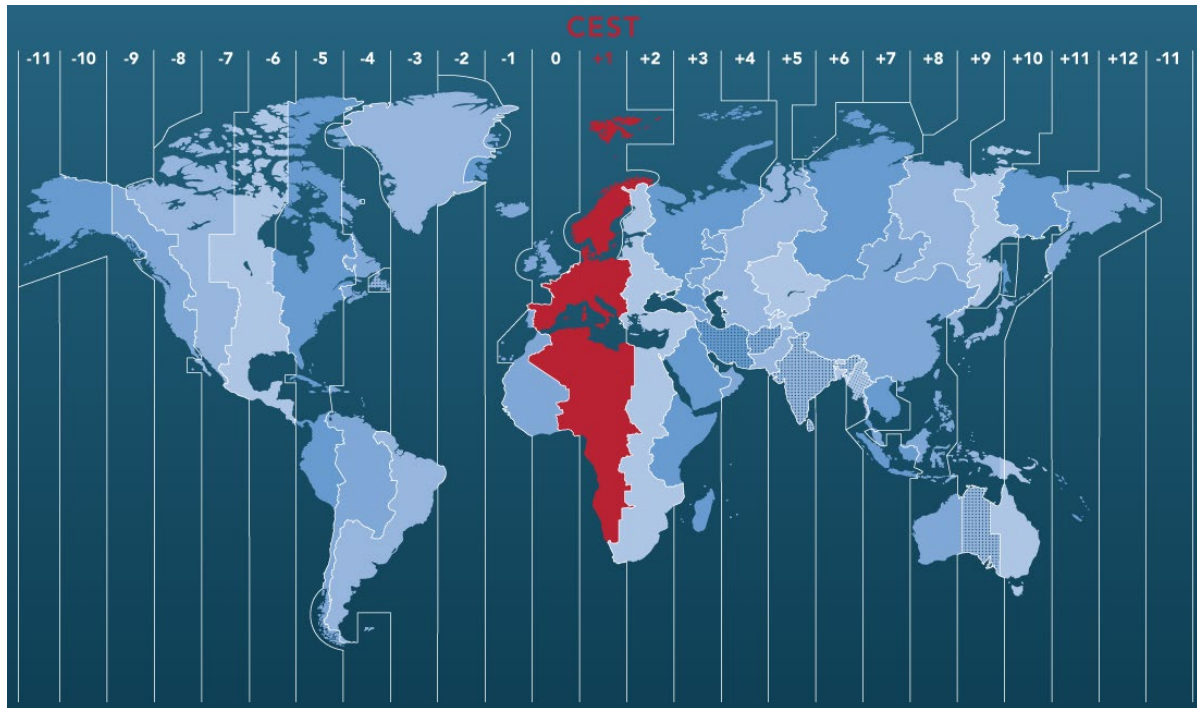
Robert.Shaw@iiwelding.net



Thursday, 15 July 2021 14.30 – 16.00 CEST (1.5 hours, note delayed start time)

Friday, 16 July 2021 13.00 – 16.00 CEST (3.0 hours)

<https://iiw2021.com/> Online Meeting Room 9



Chair:

Robert E SHAW Jr USA
robert.shaw@iiwelding.net
rshaw@steelstructures.com

Vice Chair:

Mathias LUNDIN Sweden
mathias.lundin@svets.se

Task Groups:

- 1) Standards** Bob Shaw (USA)
robert.shaw@iiwelding.net
- 2) QMS issues** Inderpal JASWAL (CAN)
Inderpal.Jaswal@cwbgrouop.org
- 3) Personnel issues** Emanuele GANDOLFO (IT)
Emanuele.Gandolfo@iiscert.it



Commission XVIII Terms of Reference (Parts 1 and 2)

(regularly updated) See XVIII-285r1-19 for original.

1.0 Scope and objectives

Commission XVIII, formerly SC-QUAL, maintains the goal to identify, create, develop and transfer global best practices in the field of quality management for welding and allied processes.

It focuses on quality management systems and the qualifications for personnel and companies involved in welding and allied processes.

Commission XVIII acts as an interdisciplinary body for the IIW, working with other Commissions to develop industry documents and standards for use by technical experts, quality managers and production personnel.

2.0 Key Objectives and deliverables

At present, Commission XVIII members are:

- Updating guidelines on the implementation of quality standards, for example, ISO 3834 "Quality requirements for fusion welding of metallic materials."
- Managing ISO 22688 "Brazing - Quality requirements for brazing of metallic materials" jointly with Commission XVII
- Drafting a new standard ISO 4061 "Soldering - Quality requirements for soldering of metallic materials" jointly with Commission XVII
- Drafting a new Commission document "Brazing coordination: Tasks and Responsibilities" jointly with Commission XVII
- Publishing "IIW Recommendations and Best Practices for Welding Inspection – Tasks and Responsibilities"
- Drafting recommendations for competences for auditors involved with the certification of companies
- Preparing comparative studies of criteria for 1) welding company audits, and 2) structural fabrication audits
- Drafting guidance on risks in fabrication industries



1. OPENING OF THE MEETING AND WELCOME

1a. Introduction of Delegates, Experts and Observers, apologies

1b. Antitrust statement

The **IIW Antitrust statement** is appended to this Agenda, as Annex A, and participants are reminded to comply. See RD-260, 17 May 2021.

1c. Meeting Procedures

Meeting procedures will be reviewed.

2. ADOPTION OF THE AGENDA

2a. XVIII-308-2021

3. ADOPTION OF THE MINUTES

3a. XVIII-307-2020

Adoption of the Minutes for intermediate meeting held Thursday, 25 February 2020



4. STANDARDS TASK GROUP – Bob SHAW (USA)

4a. "Soldering — Quality requirements for structural soldering of metallic materials"

XVIII-304-2020 Soldering — Quality requirements for soldering of metallic materials (CONCEPT 2020-07-01)

Our IIW proposal to develop a new ISO standard "Soldering — Quality requirements for soldering of metallic materials" passed the New Work item Proposal stage. It received 12 votes of support, 1 negative, and 7 abstentions. The project schedule calls for publication in 36 months. We are currently at the WD (Working Draft) stage (20.20).

The negative vote was from Japan, identifying the existence and extensive use of the IEC 61191-X *Printed board assemblies* series. IEC 61191-1:2018 prescribes requirements for materials, methods and verification criteria for producing quality soldered interconnections and assemblies using surface mount and related assembly technologies. This part of IEC 61191 also includes recommendations for good manufacturing processes.

For this reason, several members have been looking at the application of soldering outside the electronics industry to determine if development of this standard should proceed. This has been termed "structural soldering" in several sources. Discussions have included Huaping XIONG (Chair of C-XVII), Erika Hodúlová (Chair, XVIII-C), Warren Miglietti (immediate past Chair, C-XVII), Derek Davies (UK), and others.

At the February 25 intermediate meeting, the following schedule was discussed:

First WD (internal)	following July 2021 Annual Assembly
First "CD" (internal)	following January 2022 intermediate meeting
Resolve "CD" ballot	at July 2022 Annual Assembly (Tokyo)
Submit for DIS to ISO	September 2022
Receive DIS results	February 2023 (six months)
Resolve DIS ballot	at July 2023 Annual Assembly (Singapore)
Send to ISO to publish	September 2023 (four months to spare)
If FDIS needed	add 3.5 months

Members of XVIII familiar with "structural soldering" are requested to indicate their interest in this effort. In addition, as we did with ISO 22688 on Brazing, XVIII members are encouraged to bring in other experts from your country to provide technical assistance to supplement the technical support provided by Commission XVII.



5. PERSONNEL ISSUES TASK GROUP – Emanuele GANDOLFO (IT)

5a. "Recommendations for competences for auditing personnel involved with the certification of welding companies" (XVIII-297R2-2021)

Emanuele GANDOLFO (IT), Lead
Edward WHALEN (CAN)
Hans-Georg GROSS (DE/EST)
Paolo CORRONCA (AUS)
Mathias LUNDIN (SWE)
Levente BAKOS (HUN)
Herman POTGIETER (ZA)
Nadezda VOLKOVA (RUS)
Italo FERNANDES (PT)
Emma FRECKINGHAM (UK)

The task group met online on Friday 12 February 2021. Several revisions were discussed and agreed. The document to be expanded to included brazing to ISO 22688 (and perhaps other joining processes). The latest draft, updated from XVIII-297R2-2020, will be discussed.

5b. "Brazing coordination: Tasks and Responsibilities" (XVIII-296r2-2020)

This document was discussed at length during our previous meeting. A Task Group is to be formed to continue work on this document, proposed as a future ISO standard. After more work is done by the Task group, it will be presented to WG-STAND for consideration. Contact Emanuele GANDOLFO (IT), Lead.

5c. "Recommendations and Best Practices for Welding Inspection – Tasks and Responsibilities" (XVIII-292R3-2020)

This document remains awaiting completion of work being undertaken to establish a distribution system under which all IIW Recommended Practices and IIW Position Statements can be made available. This effort is currently with a Task Group under the TMB.



6. QMS ISSUES TASK GROUP – Inderpal JASWAL (CAN)

The Task Group chair wishes to add individuals with interests for the documents listed below. An online meeting is scheduled for Monday 8 March 2021, 7:00 – 9:00 am Eastern Time US, to address agenda item 6a.

6a. "Comparative studies of criteria for welding fabricator audits" (document number not assigned)

Document to compare CWB 47.1, AWS B5.17, AWS QC17, ISO 3834, NZS 3834 PLUS, and others as appropriate.

The task group met online on Monday 8 March 2021.

*Inderpal JASWAL (CAN), Lead
Doug HAWKES (AUS)
Bob SHAW (USA)
Michail KARPENKO (NZ)
Philippe LEBEAU (FR)
Japan requested to provide an individual*

Agenda:

- *Standards to be reviewed.*
- *Strategy for the comparative study*

6b. "Improving the Quality and Effectiveness of Welding by Utilizing the Standard ISO 3834 – Guideline for Company Implementation (see SC-QUAL-218-15) (First draft, update to SC-QUAL-145R4-10)

Hans-Georg GROSS (DE/EST) to review and comment.

6c. "Guidance on Risks in Welding Fabrication Industries" (assigned as XVIII-295-2020)

*Levente BAKOS (HU), Lead
Hans-Georg GROSS (DE)
Michail KARPENKO (NZ)
Bob SHAW (USA)
Doug HAWKES (AUS)
Ivanov BOYAN (DE)*

Levente BAKOS (HU) is working on a draft.



6e. "Index of Welding Quality Management System Requirements used Globally in Arc Welding Applications"
(SC-QUAL-217r1-15)

Dropped as an index, and to be rewritten as an overview document. The contents will be similar with technical references in the categories listed, but may blend EU countries, as an example. Additional support is needed from Comm XVIII members to provide information.

*Bob SHAW (USA)
Herman POTGIETER (ZAF)
Paolo CORRONCA (AUS)
Ed WHALEN (CAN)
Mathias LUNDIN (SWE)
Masaharu SATO (JPN)*

No work done to date toward a new document.

6f. "Comparative studies of criteria for structural fabricator audits"
(document number not assigned)

Document to compare AISC, IAS, CWB, CISC, ISO 3834, NZS 3834 PLUS, CE / EN 1090-2, and others as appropriate. Maintained for future consideration, but no action expected for some time.

*No LEAD established.
Edward WHALEN (CAN) or Inderpal Jaswal (CAN)
Doug HAWKES (AUS)
Bob SHAW (USA)
Michail KARPENKO (NZ)
Philippe LEBEAU (FR)
Japan requested to provide an individual.*

No work to date, as it is to follow "Comparative studies of criteria for welding fabricator audits."



7. OTHER DOCUMENTS

- 7a. **"Welding Inspection and NDE protocols in national and international standards for steel construction"**
(XVIII-298-2020, previously see SC-QUAL-192r6-13)

Bob SHAW (USA)

The document is being updated for publication as an IIW Booklet, with a substantial update and expansion of discussion, and Shaw asks for a representative of China for information on their standards for inclusion, and will request assistance from EU, AS/NZS, CAN, JP, and China for review prior to completion.

- 7b. **"Comparison of ISO 5817 quality criteria to that of national steel construction standards – surface imperfections and imperfections in joint geometry"**
(IIW SC-QUAL-167r3-11, XV-1384r1-11, XIII-2392r1-11) (designated IIW-2583-15)

Bob SHAW (USA)

To be published as a Springer book in the IIW Collection:

The ISO 5817:2003 standard upon which this document was based was updated in 2014 for fatigue provisions in an Annex, and is now being updated, including format changes. These will be incorporated into the updated IIW document.

Currently included standards are:

- AWS D1.1/D1.1M:2020 Structural Welding Code – Steel
- AASHTO/AWS D1.5M/D1.5:2020 Bridge Welding Code (to be published soon)
- AS/NZS 1554.1:2014 Structural steel welding - Welding of steel structures
- AS/NZS 1554.4:2014 Structural steel welding - Welding of high strength quenched and tempered steels
- AS/NZS 1554.5:2014 Structural steel welding - Welding of steel structures subject to high levels of fatigue loading
- CSA 59-18 Welded steel construction (metal arc welding)
- JASS 6 (2007) Structural Steelwork Specification for Building Construction (in English),
- Electric Power Research Institute (EPRI) NP-5380 Visual Weld Inspection Criteria

ISO/CD 5817 was issued as a CD (Committee Draft) ballot last summer and passed in late 2020 with numerous comments and proposed revisions. These issues have been addressed and the document has now been scheduled for DIS (Draft International Standard) ballot, due the end of October of this year. Their next step will be to address whatever comments arise from that ballot, and then an FDIS ballot would be likely (an 8-week ballot).

The schedule is to start the document updating once the DIS ballot comments are received in late October. Anything updating prior to that time would be premature.

To project a publication date for the new ISO 5817, which needs to proceed the publication of our document, a guess is late summer 2022. Our publication date should be targeted for late Fall 2022, assuming ISO/TC 44/SC 10 has no further significant issues in their work.



7c. "ISO/CD 17607:2021-X Steel Structures – Execution of Steelwork"

Of interest to members of Commission XV is the progress by ISO/TC 167 Steel and aluminium structures, WG 3 in development of the new ISO 17607-series of standards: **Steel structures — Execution of structural steelwork** —, consisting of six parts:

ISO/CD 17607-1	Part 1: General requirements and vocabulary
ISO/CD 17607-2	Part 2: Steels
ISO/CD 17607-3	Part 3: Fabrication
ISO/CD 17607-4	Part 4: Erection
ISO/CD 17607-5	Part 5: Welding
ISO/CD 17607-6	Part 6: Bolting

Parts 1, 2, and 5 were submitted for WD ballot in late 2019. Further work was suspended with the onset of Covid-19, pending a release on travel restrictions. Upon resignation of the Convenor in late 2020, a new Convenor was elected (Robert Shaw), resuming work in February 2021. Six task groups were formed within WG3, each to address a specific part. Online meetings of each task group were held every two to three weeks, sometimes more often as needed, and WG 3 met online monthly. Parts 1, 2, and 5 were issued to ISO/TC 167 for CD ballot on 2021-06-07, with a due date of 2021-08-02. Parts 3, 4, and 6 were issued for CD ballot on 2021-07-05, with a due date of 2021-08-30. The ballot addresses the question: Do you approve the circulation of the draft as a DIS?

Members of IIW Commission XV, should they wish to participate in the continued work on these standards, or wish to review and comment on the CD ballot, should contact the appropriate standards body listed in the table below.

ISO /TC 167 Steel and aluminium structures			
P-Member (Participating)		O-Member (Observing)	
Australia (SA)	Iraq (COSQC)	Argentina (IRAM)	Philippines (BPS)
Austria (ASI)	Japan (JISC)	Belarus (BELST)	Poland (PKN)
Canada (SCC)	Netherlands (NEN)	Belgium (NBN)	Portugal (IPQ)
China (SAC)	New Zealand (NZSO)	Chile (INN)	Romania (ASRO)
Czech Republic (UNMZ)	Norway (SN)	Colombia (ICONTEC)	Saudi Arabia (SASO)
Ethiopia (ESA)	Russian Federation (GOST R)	Cuba (NC)	Serbia (ISS)
Finland (SFS)	Spain (UNE)	Greece (NQIS ELOT)	Slovakia (UNMS SR)
France (AFNOR)	Turkey (TSE)	Hungary (MSZT)	South Africa (SABS)
Germany (DIN)	United Kingdom (BSI)	Iceland (IST)	Sweden (SIS)
Iran, Islamic Republic of (INSO)	United States (ANSI)	India (BIS)	Switzerland (SNV)
		Indonesia (BSN)	Tanzania, United Republic of (TBS)
		Italy (UNI)	Thailand (TISI)
		Korea, Republic of (KATS)	Tunisia (INNORPI)
		Pakistan (PSQCA)	Viet Nam (STAMEQ)

Part 7 – Corrosion protection may be added to the above list at a future date.



8. NEW BUSINESS

8a.

8b.

9. NEXT XVIII MEETINGS

9a. 17 July: Closing Ceremony and Get-Together Event, 16.30 – 17.30 CEST

9b. Intermediate meeting, Genoa, Italy, Monday, 17 January 2022 (to be confirmed)

9c. 75th Annual Assembly, Tokyo, Japan, 17-22 July 2022

9d. Intermediate meeting, Genoa, Italy, Monday, 16 January 2023 (to be confirmed)

9e. 76th Annual Assembly, Singapore, 16-21 July 2023

9f. 77th Annual Assembly, 2024

9g. 78th Annual Assembly, 2025

10. IIW ASSOCIATED EVENTS OF DIRECT XVIII INTEREST

10a. BeamTech 2022, Germany, April 2022

10b. JoinTrans 2022, Warsaw, Poland, May 2022

10c. 3rd IIW ICWAM Congress, Mets, France, 13 – 16 June 2022

10d. 18th ISTS18, Beijing, China, 12–15 October 2022

11. OTHER MEETINGS AND EVENTS OF XVIII INTEREST

11a.

11b.



12. ADMINISTRATIVE ITEMS

- 12a. Update to Commission XVIII Terms of Reference (Parts 1 and 2)
 - 12b. Resolutions, etc.
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13. ADJOURNMENT



Annex 1 - Antitrust Statement

1. Introduction

It is the policy of the International Institute of Welding (IIW), the working units and their participants, and its member societies, to comply fully with the antitrust, trade regulation, and anti-competitive laws of the EU and of the various states.

In carrying out its activities, IIW operates to ensure compliance with the antitrust laws by requiring notice of all meetings, and meeting agendas. Records of all meetings will be kept by the working unit secretary. Legal counsel will be consulted should sensitive issues be anticipated.

Member Societies and their delegates, experts, and observers must participate in IIW activities with particular care not only to avoid improper actions or results, but also to avoid even their appearance. The best guarantee of fulfilment of the IIW Antitrust Policy is the prudence of the member country representatives. They are most aware of what are sensitive matters in the industry, and thus are in the best position to avoid problems.

2. Antitrust Overview

Antitrust laws prohibit agreements or understandings between two or more individuals or businesses to regulate prices or quantities of goods or services, to allocate customers or territories, to hinder or limit a competitor or potential competitor's operations, or otherwise unreasonably restrain business activity. Discriminatory pricing or servicing is also prohibited.

The criminal penalties for violating the antitrust laws are severe: corporations, other organizations and individuals may be fined or prosecuted.

3. Rules of Conduct

Every individual should, therefore, follow these rules:

- DO NOT discuss your prices or competitors' prices with a competitor (except when buying from or selling to that competitor) or discuss anything that might affect prices such as costs, discounts, terms of sale or profit margins.
- DO NOT agree with competitors to uniform terms of sale, warranties or contract provisions.
- DO NOT agree with competitors to divide customers or territories.
- DO NOT act jointly with one or more competitors to put another competitor at a disadvantage.
- DO NOT try to prevent your supplier from selling to your competitor.
- DO NOT discuss your future pricing, marketing, or policy plans with competitors.
- DO NOT discuss your customers with your competitors.

With respect to IIW Activities:

- DO NOT make statements regarding prices or matters affecting prices at IIW meetings.
- DO NOT make statements about your future pricing plans, expansion or other policies with competitive overtones. Do not participate in a discussion where other members do.
- DO NOT propose or agree to any standardization that will injure your competitor.
- DO NOT assume you are protected by informal advice from a government official.
- DO NOT do anything immediately before or after IIW meeting, or at IIW social events that would be improper at a formal IIW meeting.
- DO leave any meeting where any of the foregoing topics are being discussed –and state why you are leaving.



- DO comply with the IIW Communication Policy.
- DO alert the IIW Board of Directors to anything inaccurate or improper. This includes a position the IIW has taken or intends to take or a meeting or activity of which you have learned.
- DO consult your own legal counsel or the IIW before raising any matter, which you feel might be sensitive.
- DO alert every delegate, expert, and observer from your organization who deals with the IIW of these guidelines.
- DO be conservative. If you feel an activity might be improper, do not do it.

