

Guidance on Complying with Section IX, QG-106

Updated to address revisions in the 2021 edition

The 2019 edition of Section IX added a requirement to paragraph QG-106 that organizations must define the education, experience or training that those who “supervise and control” the welding¹ of test coupons. These requirements do not apply to qualifications to editions of Section IX prior to the 2019 edition,² to production welding or to maintaining continuity of qualification.

This guidance document contains NO mandatory requirements, NO specific prohibitions, and IS LIMITED TO non-mandatory guidance related to implementation QG-106 by an organization. It does not address all aspects of that implementation and those aspects that are not specifically addressed herein should not be considered prohibited. This white paper is not a handbook and shall not be imposed as a programmatic replacement for alternate provisions substantiated by education, experience or training, and the use of engineering judgment by an organization.

This paper was prepared by Section IX Standards Committee to provide Code users **suggestions** for satisfying QG-106. The requirements of QG-106 are purposely open-ended; accordingly, organizations are not limited to the suggestions in the following pages. The qualification requirements that an organization adopts must be sufficient that *“the information in the qualification record is a true record of the variables that were used during the welding of the test coupon.”*³

The requirements of QG-106 do not override the operational control requirements of QG-101, QG-106.2 or the definition of “organization.” The organization that directs a welder to weld on a code component and provides the welder with a WPS to follow is the organization that has operational control of welding and must satisfy the requirements of QG-106.

The following are examples of qualifications that organizations may adopt in their quality program or use in other procedures when the organization does not have a quality program. The list of possible certifications (e.g. AWS CWI, CSEIP, etc.) that will satisfy QG-106 is not all-inclusive. Training by a community college, a trade school or your own welding engineer may also be adequate.

Forms are provided for convenience; they should be modified to match up with the criteria that the organization establishes.

¹ “Welding” is used throughout this paper to avoid repeating “welding, brazing and fusing” repeatedly. What this paper suggests for welding also applies to brazing and fusing, except that the person being qualified needs to understand the technology of those processes and how Section IX addresses them. Manufacturers who use these processes need to address them in their QC program or standard practices.

² See QG-108

³ QW-200.2(b)

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Suggested Requirements to Incorporate into a Quality Program or policy.

Management shall designate in writing those individuals who will supervise the welding⁴ of procedure and performance qualification test coupons. Individuals who supervise the welding of procedure and performance qualifications shall have one or more of the following qualifications:

For Procedure and Performance Qualification

- Prepared at least 2 WPSs for different welding processes, supervised the welding of qualification test coupons, completed supporting PQRs and had them formally reviewed by an Authorized Inspector or customer.
- Prepared WPSs for at least two different welding processes under the supervision of someone meeting other qualification requirements, supervised the welding of qualification test coupons, completed supporting PQRs and finalized the WPSs and had them reviewed by that person.
- Successfully complete commercially available on-line or live training courses covering welding processes and ASME Section IX and procedure and performance qualification requirements such as those offered by ASME, National Board, Authorized Inspection Agencies, commercial or private organizations.
- Is an AWS SCWI/CWI with endorsements in ASME Section VIII and Section IX or ASME B31.1/B31.3 and Section IX.
- Holds Certification as a CSWIP or Senior CSWIP welding inspector or other international certification that includes training in welding processes and ASME Section IX.

For Performance Qualification

- Has supervised the qualification of at least 2 welders using different processes, completed welder qualification records and had them formally reviewed by an Authorized Inspector or by customers.
- Has qualified welders using at least two different welding processes under the supervision of someone meeting other qualification requirements herein, have completed welder qualification records, and had them reviewed by that person.
- Successfully complete commercially available on-line or live training courses covering welding processes and ASME Section IX and performance qualification requirements such as those offered by ASME, National Board, Authorized Inspection Agencies, commercial or private organizations.
- Is an AWS CWI where the open-book code (Part C) covered ASME Section VIII & IX or ASME B31.1/B31.3/Section IX.
- Is an AWS SCWI/CWI with endorsements in ASME Section VIII and Section IX or ASME B31.1/B31.3 and Section IX.
- Holds an AWS SCWI/CWI Welder Performance Qualifier Endorsement (WPQ1)
- Holds Certification as a CSWIP or Senior CSWIP welding inspector or other international certification that includes training in welding processes and ASME Section IX.

⁴ While “welding” and “welders” are used herein, an organization doing brazing or fusing should address those processes in a similar manner to what is suggested for welding.

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Suggested Form for Assignment of Responsibility

On Company Letterhead

The following individuals are designated by (Company name) with responsibility for supervision, control, evaluation, and acceptance of qualification testing.

The following individuals are qualified to supervise the welding of procedure and performance qualification test coupons:

Name and title:

- 1) _____
- 2) _____
- 3) _____
- 4) _____

The following individuals are qualified to supervise the welding of welder and welding operator qualification test coupons:

Name and title:

- 1) _____
- 2) _____
- 3) _____
- 4) _____

(Company Name)

By: _____ Date: _____

Title: _____

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Suggested Form for Certification to Supervise Welding of Procedure and Performance Qualification Test Coupons

(list only the activities or training shown in the quality program or policy)

This is to certify that _____ has completed the training or activity marked below meeting the requirements of the company to supervise, control, evaluate, and accept the welding of procedure and performance qualification test coupons.

- Has prepared at least 2 WPS for different welding processes, supervised the welding of qualification test coupons, completed supporting PQRs and had them formally reviewed by an Authorized Inspector or by customers.
- Has prepared WPSs for at least two different welding processes under the supervision of someone meeting the above qualification requirements, supervised the welding of qualification test coupons, completed supporting PQRs and had them reviewed by that individual.
- Successfully complete the following training program: (Show the title of the program and the presenting organization)
- Is an AWS SCWI/CWI with endorsements in ASME Section VIII and Section IX or ASME B31.1/B31.3 and Section IX.
- Holds Certification as a (Show the certification or endorsement and certifying organization name.)

(Company Name)

By: _____ Date: _____

Title: _____

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Suggested Form for Certification to Supervise Welding of Performance Qualification Test Coupons

(list only the activities or training shown in the quality program or policy)

This is to certify that _____ has completed the training or activity marked below and has the experience marked below meeting the requirements of the company to supervise, control, evaluate, and accept the welding of test coupons for the qualification of welders and welding operators.

- Has a history of having supervised the qualification of at least 2 welders each using a different process, completed welder qualification records and had them formally reviewed by an Authorized Inspector or by a customer.
- Has qualified welders using at least two different welding processes under the supervision of someone meeting the other qualification requirements of this program, and has completed the welder qualification records had them reviewed by that person.
- Successfully complete the following training program: (Show the title of the program and the presenting organization).
- Is an AWS CWI tested where the open book test portion of the test (Part C) covered ASME Section VIII & IX or ASME B31.1/B31.3/Section IX.
- Is an AWS SCWI/CWI with endorsements in ASME Section VIII and Section IX or B31.1/B31.3
- Is an AWS SCWI/CWI with endorsements for Performance Qualification (WPQ-1).
- Holds Certification as a (Show the certification and certifying organization name.)

(Company Name)

By: _____ Date: _____

Title: _____