

COMMON ARC CORPORATION
WELDER PERFORMANCE QUALIFICATION MAINTENANCE
PROGRAM MANUAL - EDITION 5, REVISION 1



Common Arc Corporation
2600 Keslinger Road, Suite 16
Geneva, IL 60134
Phone: 630/232-8378
Fax: 630/232-9643

COMMON ARC CORPORATION
Welder Performance Qualification Maintenance Program Manual
Summary of Changes – Edition 5, Revision 1

<i>Page</i>	<i>Location</i>	<i>Change</i>
8	1.2.2	Revised to reflect that participating contractors must contribute to IBB Most and Annuity Funds.
9	1.2.5c	Revised audit requirements to include audit by a Jurisdiction or qualified auditor approved by the Operating Committee.
10	1.2.7	Explained use of Welding Sync as an additional means to update welders.
10	1.2.8	Includes the Contractors responsibility to download electronic signatures of the Common Arc Portal.
16	3.1	Restates Common Arc's record retention policy.

TABLE OF CONTENTS

SECTION	TITLE	PAGE NO.
N/A	Title Page	N/A
N/A	Manual Assignment Page	N/A
N/A	Summary of Changes Edition 5 Rev 0	N/A
N/A	Table of Contents	3
N/A	Statement of Authority	4
N/A	Purpose and Scope	5
I	Organization and Responsibility	6
II	Expiration and Renewal of Qualifications	13
III	Records	15
IV	Auditing	17
V	Program Manual Control	18
VI	Welder Performance Qualification Test	20
VII	Variables for Simultaneous Welder Qualification Testing	23
VIII	Coupon Testing for Simultaneous Welder Qualification Testing	24
IX	Retests	25
N/A	Appendix	26
N/A	Glossary	40

Approved by:


Chairman, Operating Committee

9/30/2020

Date

The use of the pronoun "he" shall, for the purpose of this Manual, be considered to include and also mean the pronoun "she".

Statement of Authority

The Common Arc Corporation (Common Arc) was created by the National Association of Construction Boilermaker Employers (NACBE) in January 1988. Common Arc is a not-for-profit corporation established with the following purposes:

- foster and advance the interests of construction boilermaker employers;
- promote and further high standards of quality and performance for welders in the construction industry;
- develop a voluntary system for certifying welders employed by construction boilermaker employers;
- collect and distribute information concerning the industry including, but not limited to, the certification and employment status of welders;
- study and report on the benefits of welder qualification and performance certification; and
- perform and do any and all such other acts as are necessary, convenient and proper to the attainment of these objectives.

The affairs of Common Arc are managed by its Board of Directors. Execution of administrative and day-to-day operation of Common Arc has been delegated to the Executive Administrator who reports directly to the Board of Directors. The Executive Administrator shall retain and direct the staffing necessary to effectuate the purposes of Common Arc.

The Common Arc Board of Directors has established two Committees to assist the Board of Directors and the Executive Administrator in the technical/operational and administrative aspects of fulfilling Common Arc's purpose.

- The Operating Committee maintains review of ASME Section IX and NBIC welder and welding operator performance qualification requirements.
- The Executive Committee oversees the day-to-day administrative operation of Common Arc to assure that necessary staffing and equipment are in place and effectively and efficiently operating to meet the purposes of Common Arc.

Ronnie L. Traxler
Executive Administrator

Purpose and Scope

PURPOSE

The purpose of this program is to reduce costs to contractors and the industry while maintaining the current standards of quality and performance. The Program described herein provides a system for the maintenance of a welder's performance qualification among a community of contractors and for the welders' performance qualification testing by a group of contractors. Note that the International Brotherhood of Boilermakers Local Lodge 169 operates its own welder qualification maintenance program and is not a direct participant of the Common Arc Welder Performance Qualification Maintenance Program. Verification of records or reports regarding Local 169 welders are the responsibility of the Local 169 program. Questions regarding the qualification status of Local 169 welders are to be directed to the Local 169 program administrator.

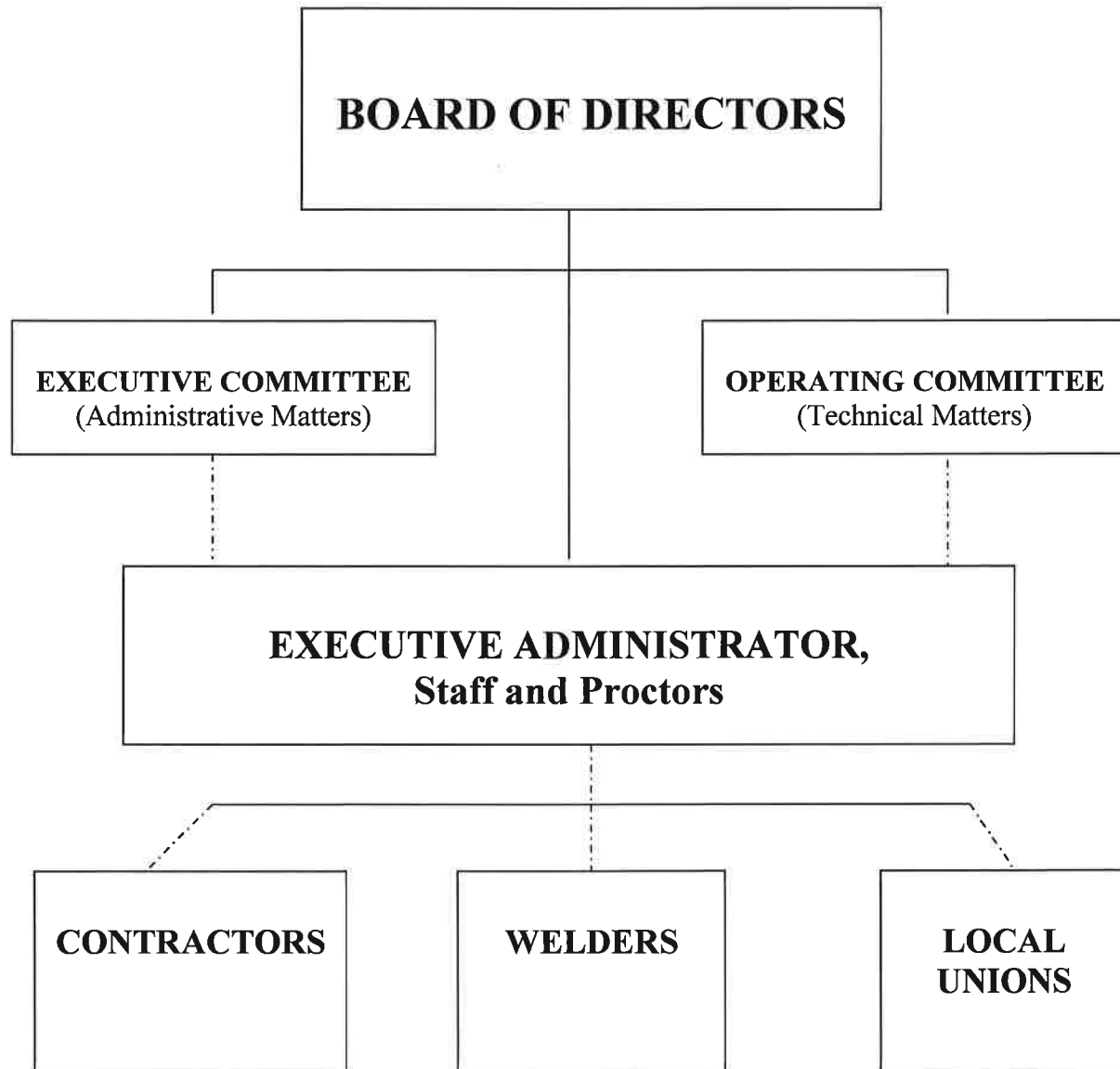
PROGRAM SCOPE

This Program has been developed to assist participating contractors to qualify welders in accordance with the current edition and addenda of Section IX of the ASME Code and provide all participants with a system that will document, maintain and distribute a current welding history for each participating welder. To facilitate documenting, maintaining and distributing the welders' welding history information, the Program utilizes an interactive database, herein referenced as the Common Arc Portal, or Portal.

The Program is not intended to provide review, certification or endorsement of welding documents as meeting the applicable code requirements for welding and does not relieve the contractor of those responsibilities specified by the ASME Code and the National Board Inspection Code. Each participating contractor shall be responsible for conducting the welder performance qualification test in accordance with his own quality control program and qualified welding procedure specifications (WPS). As an alternative to using their own WPS, the participating contractors may agree to use a single WPS provided each participating contractor has certified that it has a procedure qualification record (PQR) to support the WPS covering the range of variables to be followed during the testing.

Participation in the Program is subject to the concurrence and acceptance of the participating contractor's Authorized Inspection Agency when required.

This Manual is written to provide all participants with guidelines for compliance and implementation of the Welder Performance Qualification Maintenance Program.



1.0 ORGANIZATION AND RESPONSIBILITY

1.1 Operating Committee

- 1.1.1 The Welder Performance Qualification Maintenance Program, hereinafter referred to as the Program, shall be managed by the National Association of Construction Boilermaker Employers (NACBE) with the assistance and support of the International Brotherhood of Boilermakers.
- 1.1.2 The operational responsibility for the Program shall be delegated to an Operating Committee which shall consist of three (3) or more persons, one of whom shall be designated as Chairman. The Committee shall be appointed by, responsible to, and serve under the direction of and at the pleasure of a Board of Directors appointed by the National Association of Construction Boilermaker Employers (NACBE). The Operating Committee shall administer the Program under the direction of the Directors.
- 1.1.3 The Chairman and Operating Committee shall be responsible for Program compliance with the American Society of Mechanical Engineers (ASME) Code and the National Board Inspection Code (NBIC) and for the resolution of technical matters.
- 1.1.4 The Operating Committee shall be responsible for providing technical assistance to the Executive Administrator. The Executive Administrator shall be independent of the signatory participants of the Program.
- 1.1.5 The Operating Committee shall review for acceptance any proposed revisions to the Program in accordance with Section V of this Manual. Such acceptance may be documented by meeting minutes or Committee correspondence such as letters, emails, etc. All revisions shall meet ASME and NBIC requirements.

1.2 The Participating Contractors

- 1.2.1 Each participating contractor shall be responsible for his required activities, including record and document distribution as written in this Manual and applicable administrative procedures. Any contractor not fulfilling these responsibilities is subject to suspension from the Program. Documentation of suspension in the form of written correspondence to the contractor shall be maintained in the contractor's file.
- 1.2.2 The participating contractor must be a contractor signatory to a continuing collective bargaining agreement with the International Brotherhood of Boilermakers Union or a subordinate construction lodge thereof and must contribute to the IBB Most and Annuity Funds.
- 1.2.3 Each participating contractor shall have a written quality control system which includes provisions for assuring that welder qualification and maintenance conforms to requirements of the ASME Code, Section IX.
- 1.2.4 Each participating contractor shall sign and have on file with the Executive Administrator a Participation Agreement (Exhibit #1). Should a contractor's company name change, the participating contractor shall sign a new Participation Agreement with the new company name shown on the agreement.
- 1.2.5 (A) Except as permitted by (B) or (C) below, participating contractors shall hold either a Certificate of Authorization issued by ASME or the National Board of Boiler and Pressure Vessel Inspectors and/or jurisdictional authorities. This requirement is satisfied if the participating contractor is within the organizational structure (e.g. department, division, or subsidiary) of a company holding the Certificate of Authorization and is authorized to perform work under that Certificate of Authorization. This Authorization will be as described in the Certificate Holder's quality control system
- (B) In lieu of accreditation of (A) above, contractors with an ISO quality program or a 10CFR50 Appendix B program covering welding control may participate in this program. ISO quality programs shall

be certified by a registrar recognized by the Registrar Accreditation Board. A copy of the 10CFR50 Appendix B program or portion thereof covering welding control, shall be submitted to Common Arc for review and acceptance by an Authorized Inspection Agency selected by the Operating Committee.

- (C) To participate, in lieu of (A) or (B) above, contractors shall be audited to assure that they have a welding control program meeting the requirements of this program. The initial audit shall be by either an accredited ASME Authorized Inspection Agency, a Jurisdiction, or qualified auditor as directed and approved by the Operating Committee. Subsequent to the initial audit, the contractors shall be audited for compliance to this program once every three years by the Chairman and members of the Operating Committee.
- (D) As applicable for options (A) and (B) above (i.e., ASME, National Board, ISO), the contractor shall file a copy of at least one of its Certificate(s) with the Executive Administrator. For the 10CFR50 Appendix B program, a copy of the portion of the program submitted for review and the report of acceptance by the Authorized Inspection Agency shall be maintained on file. For option (C), the auditing inspection agency shall issue a report verifying that the contractor meets the requirements of this program. The audit report and contractor certification (Exhibit #3) shall be sent to the Executive Administrator for record and file.

- 1.2.6 Each participating contractor shall be responsible for determining, per ASME Section IX QG-106.3, the welder's ability to deposit sound weld metal. For each welder tested and certified by the contractor in accordance with this Program and the contractor's quality control program, the contractor shall complete and sign an ASME IX-Welder Performance Qualification (WPQ Template) (Exhibit #9) or similar form which contains all necessary data elements to satisfy the requirements of ASME Section IX. All WPQ Templates MUST be signed by the contractor. It is the contractor's responsibility to confirm all submitted WPQ Templates are signed. By signing the WPQ Templates, the contractor attests that the contractor's representative has positively identified the person whose performance is being tested as required by the ASME Code Section IX. The completed and signed WPQT shall be submitted to Common Arc for the

purpose of maintenance of performance qualification of the welder or welding operator. **NOTE: Please refer to Section VI, paragraph 6.2, for information regarding currently qualified welders.**

1.2.7 For all welders employed by one of the participating contractors, it shall be the responsibility of the participating contractor to provide information about the welders indicating the first and last dates on which the welders welded with a process. The information may be provided by downloading and using the Welding Sync software found on the Common Arc Portal or by completing and submitting a Welder History Record (WHR Exhibit #2). The information is to be submitted to Common Arc upon termination of a welder, on the last calendar working day of the month prior to the welder's qualification expiration date, or completion of a project, whichever comes first. Documentation of a welder's use of a process on a date over one year prior to the documentation submittal date must be attested to and submitted by the participating contractor's assigned Common Arc contact.

1.2.8 It is the responsibility of the contractor and the Local Union to provide Common Arc the names and email addresses of those within their organization to be granted access to the Portal. All persons granted access to the Portal must download their signature. Upon receipt of that information, Common Arc will input the names and email addresses into the system. Initial access to the Portal by the participating contractor will be by use of the email address used by those individuals. The individual will then set up a unique password to be used in conjunction with the email address for subsequent access to the Portal. It is also the responsibility of the contractor to advise Common Arc when an individual's access to the Portal is to be blocked (for example, when an individual leaves the employ of the contractor).

For welders, the Local Union may input the names and email addresses of their members. Upon initial log in to the Portal, the welder will set up a unique password to be used in conjunction with the email address for subsequent access to the Portal.

NOTE: When contractor representatives initially log into the Portal, they must update their Portal profile, providing an electronic signature as part of the Profile update. Participating Contractors are advised to assure that their

quality assurance program addresses the use of electronic signatures as required by ASME Section IX.

1.3 Executive Administrator

- 1.3.1 The Executive Administrator shall be responsible for collecting, maintaining, and providing information regarding the welders' qualification status. This will be done using the Common Arc Portal. The Portal shall be updated using the information provided on each contractor's ASME IX-Welder Performance Qualification (WPQ Template) (WPQT) and the information provided by the participating contractors regarding the welders' use of a process (see paragraph 1.2.7). The information for each participating contractor and Local Lodge shall be available immediately after the Portal is updated.
- 1.3.2 The Executive Administrator shall be responsible for providing access to the Common Arc Portal by the participating contractors, Local Lodges and the welders participating in the Common Arc program. Along with other information, the Portal will highlight a welder's impending qualification expiration date. Refer to paragraph 1.4.1 and 1.5.1 for action to be taken by the Local Lodge and the welders for impending qualification expirations.
- 1.3.3 The Executive Administrator shall establish and maintain record files as outlined in Section III of this Manual.
- 1.3.4 The Executive Administrator shall assign an individual(s) as Proctor to act as a Common Arc representative during simultaneous testing sessions. The Proctor shall, along with other activities, assure that all participants adhere to the requirements of the Common Arc program manual.

1.4 Local Lodge

- 1.4.1 The Local Lodge is responsible for monitoring the Portal for the impending expiration of welders' qualifications, and will, before the date indicated, instruct the welders as to the steps necessary to maintain their qualifications.
- 1.4.2 When welder performance qualification tests are scheduled by the Local Lodge, the Executive Administrator and the Local Lodge shall be

responsible for coordinating and scheduling the testing and notifying all participating parties of the scheduled testing date.

1.5 Welders

1.5.1 Welders who participate in the Welder Performance Qualification Maintenance program shall be responsible for completing the test welds as directed by the contractors. The welders are also responsible for monitoring, in conjunction with the Local lodge, the Portal for their impending qualification expiration and for taking the steps necessary to maintain their qualifications.

1.5.2 Welders who participate in simultaneous test sessions shall be subject to inspections from all participating contractors present at the session at the contractor's discretion.

NOTE: Please refer to Section VI, paragraph 6.2 for information regarding currently qualified welders.

1.5.3 The contractor's decision on the test acceptance or rejection is final. In situations wherein a dispute not relating to test acceptance or rejection occurs, the dispute shall be resolved between the contractor, Local Lodge and Proctor. If irresolvable, the Executive Administrator shall be apprised of the details and make the final decision with the acceptance of test results remaining solely the contractor's responsibility.

1.5.4 When the Executive Administrator is made aware of a welder's name change (e.g., by a WPQ or update sent in by a Contractor), the name change will be verified by logging into the MOST website and, if the associated BDS number matches the MOST profile, the name will be changed in the Common Arc database.

2.0 EXPIRATION AND RENEWAL OF QUALIFICATIONS

- 2.1 A welder performance qualification for a particular process shall be considered to have expired if any of the following have occurred:
- 2.1.1 When a welder has not welded with a process during a period of six (6) months or more, his qualification for that process shall be expired.
 - 2.1.2 If a participating contractor considers the welding quality of a welder to be unsatisfactory, that contractor may require that the welder be removed from the participating contractor's list. The contractor will use the Common Arc Portal stating the reason for removal. On a periodic basis, the Executive Administrator shall advise all participating contractors of those welders who have been removed by a participating contractor.
- 2.2 When a welder's performance qualification has expired for reasons outlined in paragraph 2.1.1, renewal of a qualification of a specific welding process may be made by welding a single test coupon of either plate or pipe, of any material, thickness or diameter, and in any position. That coupon shall be tested as required by ASME Section IX. This renews, for each participating contractor witnessing and accepting the test, the welder's previous qualifications for that process for those materials, thicknesses, diameters, positions, and other variables for which he was previously qualified. Each participating contractor is responsible for completing and signing an ASME IX-Welder Performance Qualification (WPQ Template) for each welder successfully completing the renewal qualification test. A copy of the WPQ Template is to be submitted to the Executive Administrator within the time frame identified in Paragraph 1.2.7.
- 2.3 When a welder's performance qualification has been terminated by a participating contractor for reasons outlined in paragraph 2.1.2, the welder may be reinstated by that participating contractor after successfully completing a welder performance qualification test in accordance with ASME Section IX and the participating contractor's quality control program. The coupon shall be tested in accordance with ASME Section IX and the contractor's quality control program. The participating contractor shall complete and sign an ASME IX-Welder Performance Qualification (WPQ Template) for each welder successfully completing the qualification test. A copy of the WPQ Template is to be submitted to the Executive Administrator.

- 2.4 Information regarding imminent loss of a welder's qualification shall be maintained by the Executive Administrator in the Common Arc Portal and made available to the participating contractors, Local Lodges and the welders in accordance with paragraph 1.3.2.
- 2.5 A non-production weld using each welding process for which the welder is qualified may be made to prevent the expiration of a welder's qualification provided the following is accomplished:
- 2.5.1 The weld is administered by a participating contractor.
- 2.5.2 The weld is made on plate or pipe in any position.
- 2.5.3 The weld is witnessed, visually inspected, and accepted by a participating contractor.
- 2.5.4 Upon satisfactory completion of the weld specimen, the Executive Administrator shall be notified. Notification may be done by using the Welder History Record (WHR) or the Common Arc Portal. Upon receipt of the notification, the Executive Administrator shall update the welder's maintenance records.
- 2.5.5 A welder who has maintained his welder performance qualification by performing only non-productions welds may, at the option of the participating contractor, be required to perform one or more of the following:
- A. A non-production weld as described in paragraphs 2.5 through 2.5.4.
 - B. A qualification renewal test as described in paragraph 2.2.
 - C. A welder performance qualification test in accordance with the contractor's Quality Control Program.
- 2.6 Upon expiration of a welder's qualification, the Executive Administrator shall update the Common Arc Portal indicating that the welder's qualification has expired.

3.0 RECORDS

3.1 The Executive Administrator may maintain the records listed below for the time periods indicated. The records may be hard copy, electronic, or a combination of both.

3.1.1 Welder

- A. Each participating contractor's ASME IX-Welder Performance Qualification (WPQ Template) (Exhibit #7) will be generated and sent to the Contractor for their retention. A copy may be retained by Common Arc as a convenience to the Contractor.
- B. The Test Event Schedule (Exhibit #4); five (5) years after date of expiration.
- C. Record of welder removal (see paragraph 2.1.2); one (1) year after date of removal.
- D. All welders whose qualifications have expired shall have their records maintained by the Executive Administrator in a computer file for a period of one (1) year from the date of expiration, after which they may be removed.

3.1.2 Participating Contractor

- A. Participation Agreement - current.
- B. ASME/NB Certificate of Authorization (if applicable) - current.
- C. ISO Quality System Certificate of Registration (if applicable) - current.
- D. Copy of 10CFR50 Appendix B program (if applicable), or portion thereof covering weld control, and acceptance report by an Authorized Inspection Agency selected by the operating committee – current.
- E. Audit report and Contractor Certification (Exhibit #3) (if applicable – see 1.2.5.C) - current.
- F. Each Welder History Record (WHR) or Portal update (as applicable) - five years minimum.

3.1.3 General

- A. Program audit reports; permanent.
- B. Portal Test Event Schedule and Contractor Sign-In; five (5) years after date of testing.
- C. Hard copy Program Manual distribution log; current.

- 3.2 No welder shall be placed into the Program until after receipt by the Executive Administrator of the appropriate ASME IX-Welder Performance Qualification (WPQ Template), the Performance Qualification Test Check Off Sheet (if applicable) and the applicable records listed in 3.1.2.
- 3.3 Services provided by Common Arc may be suspended for any contractor not submitting the required documentation as required in Section I.

4.0 AUDITING

- 4.1 The Program shall be subject to audit reviews. The audit reviews may be conducted, as deemed necessary, by the participating contractors, the Authorized Inspection Agencies, and/or representatives of the ASME, the National Board and State and Local jurisdictions.
- 4.2 The Program shall be audited at least annually by an Audit Team selected by the Operating Committee. The Audit Team may consist of representatives of participating contractors, Authorized Inspection Agencies, International Brotherhood of Boilermakers, or other organizations, societies, agencies, or boards as deemed appropriate by the Operating Committee. In some cases, the Audit Team may consist of only one person. Members of the Operating Committee and the Executive Administrator shall not participate as Audit Team members.
- 4.3 An Audit Team Leader will be selected by the Operating Committee. The Team Leader should have auditing experience to provide assurance that the selected individual is knowledgeable of the auditing techniques of examining, questioning, evaluating, and reporting.
- 4.4 Audit results shall be documented by the Audit Team and maintained on file by the Executive Administrator. Participating contractors and Local Lodges will be provided a copy of the audit results upon request to the Executive Administrator. Copies of the audit results may be provided to other interested parties as deemed appropriate by the Executive Administrator.
- 4.5 The Executive Administrator shall respond to the Audit Team in writing, documenting any remedial and/or corrective actions taken or to be taken to address deficiencies noted during the audit. When actions by participating contractors are necessary, the applicable contractors shall be advised in writing of the deficiencies noted and the actions required to correct the deficiencies. Documentation of remedial and/or corrective action shall be maintained on file by the Executive Administrator and will be made available for review by interested parties as deemed appropriate by the Executive Administrator.
- 4.6 In order to close the audit, the Audit Team Leader should respond to the Executive Administrator that he agrees or concurs with the audit response thereby completing the audit process.

5.0 Program Manual Control

- 5.1 All revisions to the Program Manual shall be accepted by the Operating Committee. Such acceptance may be documented by meeting minutes or Committee correspondence such as letters, emails, etc. Approval will be indicated by the signature of the Operating Committee Chairman on the Table of Contents of the Program Manual.
- 5.2 When a revision to all or part of a Section is necessary, the entire Section shall be re-issued.
 - 5.2.1 Except when the revision is major, the revised Section(s) or paragraph(s) shall be indicated in such a way (e.g., an asterisk next to the revision, a vertical line in the left margin, different colored text, etc.) that it will be clear to the reader which portions have been revised.
 - 5.2.2 If the revision is major, the words “MAJOR REVISION” will appear in the title block.
 - 5.2.3 A revision to the Appendix shall be by exhibit. A revised list of sample forms shall be issued with each revision to the Appendix.
 - 5.2.4 After five revisions, the manual shall evolve to the next edition (1, 2, 3, etc.) with all revisions starting with “0” for the new edition.
- 5.3 All revisions shall, as a minimum, meet ASME and NBIC requirements. The Chairman of the Operating Committee shall be responsible for the review of new Code editions for effects on the Program and incorporation into the Manual as necessary (Exhibit #6). Addenda reviews shall be documented even if no Manual revisions are required. After Program revisions are approved by the Chairman and Operating Committee, revisions shall become effective when issued. All revisions made because of ASME or NBIC code changes shall be mandatory on the code effective date.
- 5.4 The Executive Administrator is responsible for the control of and revisions to the Program Manual. The latest approved revision of the manual shall be made available to the Participating Contractors via the Common Arc Portal. The Executive Administrator shall notify the participating contractors by letter that

revisions have been made to the Program Manual. The access control features of the website shall be used to prevent unauthorized modification to the manual. NOTE: Printed copies are considered uncontrolled. Verify revision against the version posted on the website.

- 5.5 Issuance of any controlled hard copies of the Program Manual shall be controlled as described below. Hard copies of the Program Manual not controlled as described below shall be considered uncontrolled. Uncontrolled hard copies of the manual may be distributed at the discretion of the Executive Administrator

5.5.1 Controlled Program Manuals shall be transmitted with a Program Transmittal Form (Exhibit #13). The transmittal shall identify the recipient, Controlled Manual Number, and provide for a recipient signature acknowledging receipt. This form shall be completed by the recipient and returned to the Executive Administrator for file and record.

5.5.2 The Executive Administrator shall record the distribution of controlled manuals. The receipt of the transmittal form shall also be recorded.

5.5.3 Program manual recipients who do not return the receipt document properly signed shall receive a second notice. If this second notice does not cause the proper receipt to be returned, their manuals shall be declared uncontrolled.

6.0 WELDER PERFORMANCE QUALIFICATION TEST

6.1 General

- 6.1.1 Each participating contractor shall have a written quality control system including provisions for assuring that welding conforms to requirements of the current edition and addenda of the ASME Code Section IX.
- 6.1.2 Each participating contractor shall be responsible for his required activities as written in his Quality Control Program and this Manual for welder performance qualification tests.
- 6.1.3 Contractors are advised that individual contracts by the clients may contain special welder qualification requirements in addition to those required by the Code and those outlined in this Manual.
- 6.1.4 Each welder shall use the welder's BDS Number (see Glossary) issued by the International Brotherhood of Boilermakers as an identification number for the purpose of traceability within the records of the Executive Administrator's files for welder performance qualification maintenance. Welders not yet issued a BDS Number shall use their social security number.

6.2 Simultaneous Welder Qualification Testing

- 6.2.1 A briefing shall be conducted by a Common Arc Proctor prior to any welder performance qualification tests at each scheduled test session. The purpose of the briefing is to familiarize each participating welder and contractor with the testing procedure and their role within the Program. Prior to the briefing, a Portal Test Event Schedule (Exhibit #4) and Contractor Sign-In (Exhibit #12) shall be completed for each participating welder and contractor, as applicable. Each welder shall provide formal identification. This identification shall consist of photographic identification such as a driver's license. In lieu of photographic identification, the identity of the welder shall be verified by a Local Lodge or contractor representative.

NOTE: Contractors are not required to observe and evaluate the qualification test of a welder that is currently qualified for them for the essential variables covered by the test being performed. If the

qualification test is observed and evaluated by the contractor and the welder does not pass, upon written notification by the contractor to do so, the welder's qualifications covered by the test will be pulled from the contractor's list of qualified welders. The participating contractor and the welder are responsible for verifying whether a welder is already qualified prior to starting the test.

- 6.2.2 During the briefing, each welder shall receive a welder instructions sheet (Exhibit #5), a form containing a list of all contractors participating in the test session, and a description of the four (4) inspection hold points required during the performance qualification test shown on the Test Event Schedule (Exhibit #4). It shall be the responsibility of each participating welder to obtain the signature or initials of each contractor for each of the required inspection hold points as they occur. Each contractor shall have completed his inspection and initialed the appropriate box for each inspection hold point before the welder can proceed with the next portion of the test. **No contractor shall be permitted to sign for another contractor.**
- 6.2.3 A participating contractor may terminate an individual welder's performance qualification test whenever the contractor has determined that the welder does not have the ability to deposit sound weld metal within the requirements of the contractor's Welding Procedure Specifications (WPS). When a participating welder has been terminated by one of the participating contractors, the welder shall continue the test for the remaining participating contractors.
- 6.2.4 Each participating welder shall be qualified using each process or combination of processes the welder may be required to use in production. Each participating welder may be qualified to weld with a combination of processes on one performance qualification test utilizing a combination of processes on a single test coupon.
- 6.2.5 Any pre-heat or post-weld heat treatment required on the contractor's WPS shall be omitted for performance qualification testing.
- 6.2.6 The following hand tools will be permitted for use by the participating welder during the prescribed test. Use of additional hand tools as permitted by the contractors may be used.

- A. Slag pick.
- B. Hand wire brush.
- C. File.
- D. Grinder

6.3 Individual Contractor Qualification Testing

- 6.3.1 Welders may be qualified by a participating contractor at other than simultaneous welder test sessions. If the welders are to be included in the program and listed for the contractor in the Portal, copies of the WPQ Templates) must be submitted by the contractor to the Executive Administrator for retention. It is permissible for a contractor to submit WPQ Templates for qualification tests performed in accordance with a code or standard other than ASME Section IX (e.g., AWS). When this is done, the tests shall be in accordance with the contractor's Quality Control program for welder qualification. The welders will be included in the Portal for the contractor. These tests will be identified in the Portal in such a way as to identify them as being other than qualification tests meeting ASME Section IX. It is recommended that the contractor also send copies of the WPQ Templates to the Local Lodge for retention.
- 6.3.2 Welders should be instructed by the contractor about the Program prior to the qualification test.

7.0 VARIABLES FOR SIMULTANEOUS WELDER QUALIFICATION TESTING

For the purpose of uniformity and consistency, each participating welder shall be qualified during simultaneous welder qualification testing in accordance with the participating contractor's welding procedure specifications (WPS) and the variables described in the ASME IX-Welder Performance Qualification (WPQ Template) (see sample, Exhibit #7). Refer to Exhibit #8 as a guide when comparing WPS essential variables. As an alternative to using their own WPS, the participating contractors may agree to use a single WPS provided each participating contractor has certified that it has a procedure qualification record (PQR) to support the WPS covering the range of variables to be followed during the testing. When using their own WPS, the contractor must add their WPS to the Common Arc Portal.

8.0 COUPON TESTING FOR SIMULTANEOUS WELDER QUALIFICATION TESTING

- 8.1 The coupon test positions are shown in Exhibit #9. For pipe and plate coupons, bend specimens shall be removed from the test coupons in accordance with the locations illustrated in Exhibit #10.
- 8.2 Testing of the coupons shall be in accordance with the requirement of Section IX.
- 8.3 Welder identification number stamping for pipe and plate coupons shall be per Exhibit #11.
- 8.4 The individual contractor's quality control program requirements for welder qualifications may exceed the above criteria and may be implemented as required by the contractors.

9.0 RETESTS DURING SIMULTANEOUS WELDER QUALIFICATION TESTING

- 9.1 When a participating welder fails to meet the performance qualification test requirements of the Program, the welder has the option of an immediate retest or to seek further training or practice under the conditions noted below. At the discretion of the Lead Proctor, only one retest per welder may be given during the complete testing session (i.e., week). When time and/or test booths are limited, the Lead Proctor may schedule or limit all retesting.

9.2 Immediate Retest

For the purpose of simultaneous welder qualification testing, immediate retest shall be considered as an additional test taken the same day as that of the failed test. When an immediate retest is made, the welder shall make two (2) consecutive test welds for each position in which the welder failed, both of which shall pass the test requirements of ASME Section IX. For plate tests, a failure of one position fails for all positions; therefore, a retest shall consist of all three positions, all of which must pass.

9.3 Further Training

When the participating welder is given further training or practice, the welder shall take a single complete performance qualification retest for each position in which the welder failed to meet the prescribed test requirements of the original test. A single retest may be given the following day after a failed test. For plate tests, a failure of one position fails for all positions; therefore, a retest shall consist of all three positions, all of which must pass.

9.4 Examination

When the initial performance qualification test specimen has failed the examination, the retest shall be by the same examination method used for the initial test.

Appendix

APPENDIX

Note that the forms on the following pages are samples. Forms in use may be a different revision or format, but they will contain similar information as indicated by these samples.

EXHIBIT	TITLE	PAGE NO.
No. 1	Participation Agreement	27
No. 2	Welder History Record	28
No. 3	Contractor's Certification	29
No. 4	Portal Test Event Schedule (Replaces Sign-In Roster)	30
No. 5	Welder Instructions	31
No. 6	Review and Implementation of Code Edition	32
No. 7	Performance Qualification Test Record (WPQT)	33
No. 8	Weld Procedure Specification Essential Variables	34
No. 9	Test Positions	35
No. 10	Bend Specimens	36
No. 11	Welder Identification Number	37
No. 12	Contractor Sign-In	38
No. 13	Program Transmittal Form	39

COMMON ARC CORPORATION
PARTICIPATION AGREEMENT

1. This Agreement, entered into on the date set forth below, describes the terms and conditions upon which

(Name as shown on current Certificate of Authorization or name of Certificate Holder's organization's department, division, or subsidiary authorized to perform work under that Certificate of Authorization as described in the quality control system)

(the "Employer") will participate in the Common Arc Welder Performance Qualification Maintenance Program (the "Program").

1. The Employer will participate in such welder qualification examinations sponsored by the Program as it chooses, and will maintain with the Program such welder qualification records for which the Program offers retention as it chooses. The Employer agrees that records maintained by the Program shall be under the operational control of the Employer.
2. During its participation in the Program, the Employer agrees to be bound and abide by the procedures and regulations established by the Common Arc Board of Directors and Executive Committee in their present form and as they may be amended from time to time.
3. The Employer attests that its Welder Procedure Specification (WPS) used for simultaneous test sessions are qualified in accordance with Section IX of the ASME code. The Employer agrees to compare its WPS to those of the other Employers participation in simultaneous test sessions to assure the essential variables (as described in Section IX, QG-106.3(a) of each WPS are identical.
4. The Employer understands and agrees that it alone shall be entitled to and responsible for determining the qualifications of any and all welders which it may enter into or maintain in the Program. The initial testing of welders, with respect to their qualifications and criteria by which welders will be deemed to have maintained their qualifications, shall be conducted and applied solely by the Employer in accordance with the Employer's own requirements and standards. The Employer agrees to indemnify and hold harmless Common Arc and MOST, and their respective officers, directors, agents, employees and members against any claim regarding the qualifications of any welder entered into or maintained in the Program by the Employer.

In agreement with the foregoing, and in consideration of the similar Agreements entered into and to be entered into by other employers and the benefits to it of the Program, the Employer has caused this Agreement to be executed by its representative authorized to do so.

Participating Employer

Date

Common Arc Administrator

Date

COMMON ARC
WELDER HISTORY RECORD MULTIPLE LISTING FORM

ORIGINAL

CONTRACTOR PROJECT _____

(PROJECT NAME, CITY, STATE) _____ (S.S.#) (DOB, M/D/Y) _____

WELDER'S NAME	SSN Number	LOCAL	PROCESSING						NON-PROD WELD	SATISFACTORY	
			SMAW		GTAW		FCAW/MIG/MAG			YES	NO
			Date First Used on Current Job	Date Last Used	Date First Used at Current Job	Date Last Used	Date First Used on Current Job	Date Last Used			
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

COMMENTS (If removing from list give name, SS No., and reason) _____

By signing this form I verify that I have witness these welders weld in the process listed above

Contractors Representative: _____ (PRINT NAME AND TITLE)

PHONE () _____

SIGNATURE _____ DATE _____

Digital signature or actual hand signature only

Do not alter this form or add more than 20 welders per page

Common Arc

(630) 232-4378 FAX (630) 232-4643

Instructions

CONTRACTOR - Go to

Common Arc with a cover letter or

Email to bw@commonarc.com

Retain a copy for your records

CONTRACTOR'S CERTIFICATION

TO: Common Arc Corporation, Geneva, Illinois

We hereby certify that we have developed and consistently implement a written quality control system for work governed by _____

(List Primary Standards or Codes Governing Work)

The quality control system includes provisions for assuring the welding conforms to the requirements of the ASME Code, Section IX.

Contractor

Authorized Representative

Date

Test Event Schedule

Hammond, IN, Phone: 219-845-1000
07/24/2017 to 07/28/2017

James Edwards (168494, E1925)

Local

Test 2 3/4" TIG

ID Verified _____

Booth No. _____

Time In _____

Contractor		Retest	Fit-up	Root pass	Final weld	Bend test

**COMMON ARC
WELDER INSTRUCTIONS 03**

NOTE THAT INHALING WELDING FUMES MAY BE HARMFUL TO YOUR HEALTH. KEEP YOUR HEAD OUT OF THE WELDING SMOKE PLUME AT ALL TIMES DURING THE TEST.

Your Test Variables & Procedure Instructions		Your Qualification Ranges
Processes, Polarity, Volts/Amps	SMAW, DCEP, 18-26/40-150	SMAW - manual
Filler Metal F-No. & Classification	SMAW Root F3 – E6010	All F4, 3, 2 & 1 rod
	SMAW Fill F4 – E7018	
Backing	SMAW Root – None	All F3 rod with or without backing
	SMAW Fill – Metal	All F4, 3, 2 and 1 rod with metal bckg.
Preheat	50° F	
Coupon Size	2 NPS	1" OD and greater
Coupon Thickness	0.436"	
Deposited Thickness	SMAW F3 – 0.125"	All F3, 2 & 1 rod up to 0.872"
	SMAW F4 – 0.311"	All F4 rod up to 0.622"
Coupon Position	6G	All positions
Welding Progression	Up	Up

1. You will be qualified for each contractor that witnesses and accepts your test results.
2. Your ID number and the letter "T" will be stamped on your coupon. Your ID number is the first letter of your last name and the last four (4) digits of your social security number. Position your coupon such that the letter "T" is at the 12 o'clock position. **The time limit for this test is 4 hours.**
3. Each contractor representative must witness the four (4) hold points identified on the "Test Check Off" form. If you proceed beyond a hold point without having it witnessed, you will be disqualified by that contractor. Hold points are the fit-up, root pass, final weld, and the bend test.
4. A contractor representative can "look you out" at any point in the test. You should still continue with the test for the other contractors, however, as others may have no problem with your welding. It is possible to pass the test for all contractors, for no contractors, or for any number in between.
5. If you fail the test, after additional training or practice a single coupon retest may be taken the next day or later, if the contractors mark retest on the Common Arc website and if time and space permit. Only 1 retest is permitted.
6. If you file the ID (root), change the position of the coupon, or if the coupon falls off during the test because it was inadequately tacked to the test fixture, you will be disqualified. So be sure it is adequately tacked prior to starting the test. Note: raising, lowering and swinging the test fixture are permitted.
7. After completing the test, please return to the Registration Desk.
8. If you pass the test, the results will be put into the Common Arc database. Each contractor that you work for that is in the program must complete a "Welder History Record" monthly or when you leave a job, indicating the processes that you welded with and the last date you welded. The report will be sent to Common Arc. The Local will let you know if your qualifications are close to expiring, so you can have a participating contractor witness you welding a 6" long weld in the applicable processes. This will be necessary if you work for a long time for a contractor *not* participating in the program or you do not weld for any contractor.
9. **Note** - It is your responsibility to make sure that participating contractors submit the "Welder History Record" on time so that your qualifications do not lapse. You can check your qualifications dates by either checking with your local, logging onto the BDS system, your MOST profile or asking for access to the Common Arc website. Your qualifications will expire six months from the last update that Common Arc receives. You must be welding in a process ie, GTAW, SMAW, FCAW to get updated. If you are a tube welder and are welding stick, only your stick process will be updated, unless you ask the contractor to let you weld a 6" long weld in the applicable processes. If you do no welding in any process witnessed by a participating Common Arc contractor for six (6) months, your qualification will expire. Each time you weld in a process, your qualification is extended in that process for another six (6) months beyond the last date you welded with that process and the Welder History Record is submitted by a Common Arc contractor.

I HAVE READ AND UNDERSTAND THE ABOVE INSTRUCTIONS.

Signature _____ Date _____

WLDINS 03

RECORD of CODE REVIEW

_____ ASME Section _____ Edition _____

_____ Part 1 NBIC Edition _____

_____ Part 2 NBIC Edition _____

_____ Part 3 NBIC Edition _____

_____ Part 4 NBIC Edition _____

The Code edition indicated above has been reviewed and the required changes noted below incorporated into the Welder Performance Qualification Maintenance Program Manual.
Changes to the Program Manual Due to Code Revisions:

Signed _____
Chairman, Common Arc Operating Committee

Date _____

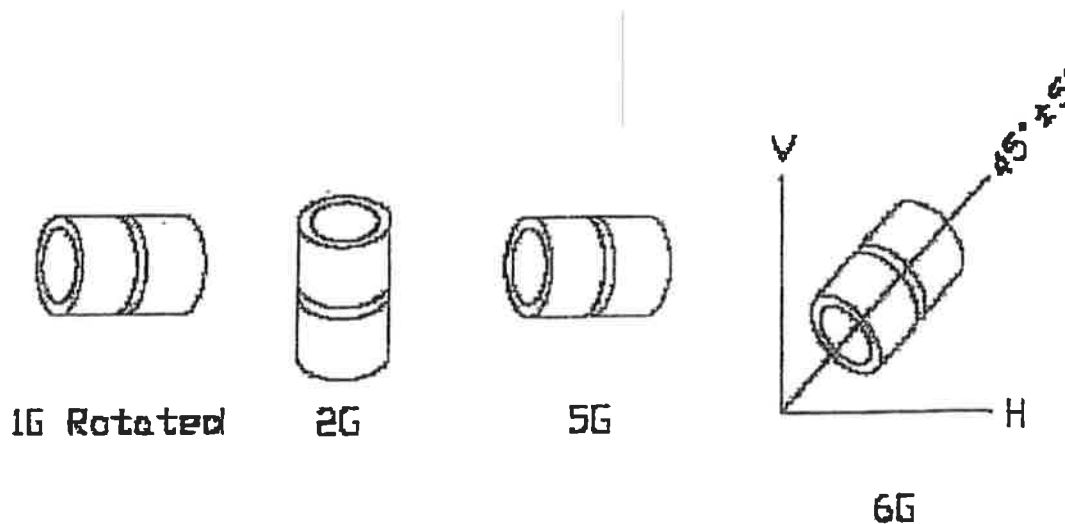
ASME IX - Welder Performance Qualification (WPQ Template)

Result	Pass	
Standard Test No.	2 3/4" TIG	Rev. 8 2015 10
WPS record No.	CA-01	Rev.
Qualification code	ASME IX	

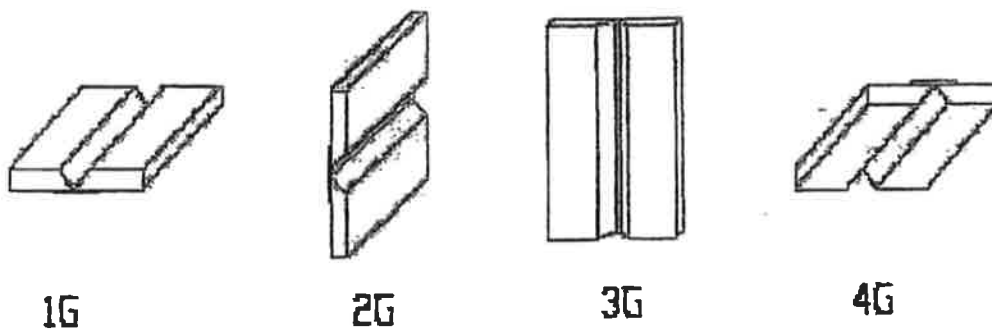
Item	Product Form	Spec. (Type or Grade), UNS #	P no.	Grp.no.	Size	Sch.	Thick.	In.	Dia.	In.
Welded to	Pipe	A-106 (B), K03006	1	1			0.625		2.75	
	Pipe	A-106 (B), K03006	1	1			0.625		2.75	
Weld type	Groove									
Variables		Actual Values								
Type of weld joint		Pipe - groove								
Base metal		P1 to P1								
Base Metal Thickness		Groove	Fillet	Overlay						
Plate thickness	In.	-	-	-						
Pipe/Tube thickness	In.	0.625	-	-						
Pipe/tube diameter	In.	2.75	-	-						
Process Variables										
Process	GTAW		SMAW							
Type	Manual		Manual							
Backing	Without		With							
Filler material specification	5.18		5.1							
Filler material classification	ER70S-2		E7018							
Filler material F no.	6		4							
Filler material product form	Bare (Solid)									
Consumable Insert	Without									
Deposit thickness	0.125		0.5							
Fillet size										
No. of layers			3+							
Welding position	6G		6G							
Groove - plate & pipe > 24"										
Groove - pipe 2.875 - 24"										
Groove - pipe < 2.875"										
Fillet - plate & pipe > 24"										
Fillet - pipe 2.875 - 24"										
Fillet - pipe < 2.875"										
Progression	Up		Up							
Backing gas	Without									
Current/polarity	DCEN									
Tests										
Type of test		Acceptance criteria		Result		Comment				
Visual examination per QW-302.4		QW-194		Acceptable						
4 transverse side bends per QW-161.1, QW-463.2(e) and QW-462.2		QW-163		Acceptable						
Welding supervised by		Mechanical tests by		Films/specimens evaluated by		Laboratory test number		Test file number		
We certify that the statements in this record are correct and that the test welds were prepared, welded and tested in accordance with the requirements of ASME IX.										

Contractor

WPS ESSENTIAL VARIABLES												
VARIABLES	SEC IX QW Paragraphs	CARBON STEEL						STAINLESS STEEL			INCONEL	
		GTAW	SMAW 7018	SMAW 6010	GMAW MSC WITH GAS	FCAW GMAW WITH GAS	FCAW GMAW W/O GAS	GTAW	SMAW	FCAW GMAW WITH GAS	GTAW	SMAW
Base P-No.	403.11	1	1	1	1	1	1	8	8	8	43	43
Filler F-No.	404.4	6	4	3	6	6	6	6	5	6	43	43
Filler A-No.	404.5	1	1	1	1	1	1	8	8	8	-	-
Filler Form	404.23	Solid	-	-	Solid	Flux Core	Flux Core	Solid	-	Flux Core	Solid	-
Supplemental Filler	404.24	-	-	-	None	None	None	-	-	None	-	-
Alloy Elements	404.27	-	-	-	None	None	None	-	-	None	-	-
Shielding Gas	408.2	100% Argon	-	-	75% Argon 25% CO2	75% Argon 25% CO2	None	100% Argon	-	75% Argon 25% CO2	100% Argon	-
Backing Gas	408.9	100% Argon	-	-	None	None	None	100% Argon	-	None	100% Argon	-
Trailing Gas	408.10	None	-	-	None	None	None	None	-	None	None	-
Short Circ. Transfer Mode	409.2	-	-	-	Yes	No	No	-	-	No	-	-

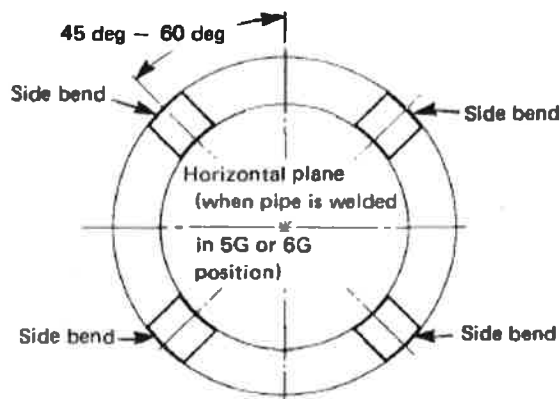


GROOVE WELDS IN PIPE - TEST POSITIONS



GROOVE WELDS IN PLATE - TEST POSITIONS

Test Specimen Locations Bend Specimens



Pipes – Over $\frac{3}{4}$ in. thick and
 alternate from $\frac{3}{8}$ in. but less than $\frac{3}{4}$ in. thick.
 The side bend specimens are to be $\frac{3}{8}$ in. thick.

Discard	this piece
Root-bend	specimen
Face-bend	specimen
Discard	this piece



Discard	this piece
Side-bend	specimen
Side-bend	specimen
Discard	this piece

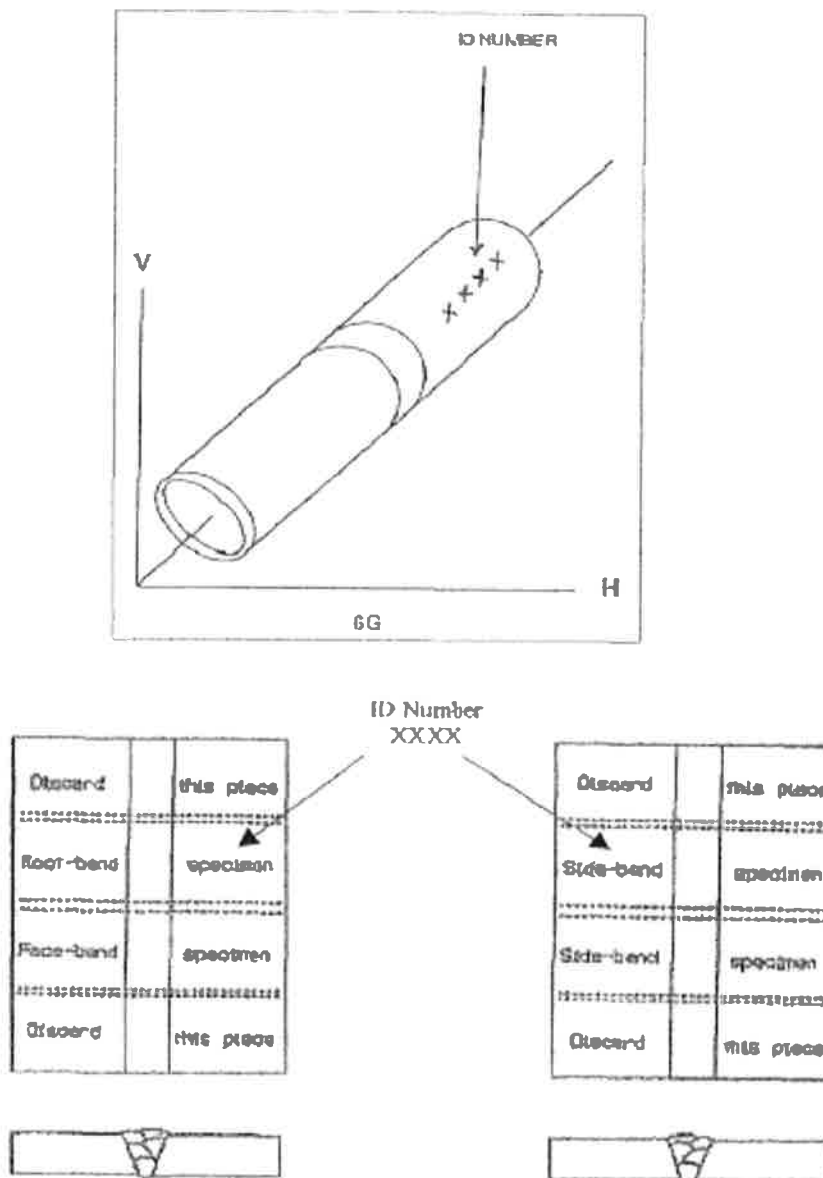


Plate Test Coupons

For plate test coupons less than $\frac{3}{8}$ " thick, there is to be 1 root-bend and 1 face-bend test specimen for each position tested. For plate test coupons $\frac{3}{8}$ " thick and greater, there are to be two (2) $\frac{3}{8}$ " thick side-bend test specimens for each position tested.

General Note

The weld reinforcement and backing strip are to be removed flush with the surface of the bend-test specimen. The roughness of the specimens may be dressed by machining or grinding with the edges having a maximum radius of $\frac{1}{8}$ ".



The ID number shall consist of either the welder's BDS number issued by the IBB, or the first letter of the welder's last name followed by the last four (4) digits of the welder's Social Security number (e.g., P1234). The ID number is to be placed on the test coupon such that it remains legible on the bend-test specimen after removal from the test coupon.

CONTRACTOR SIGN-IN
REV. 0 2019 0-4

COMMON ARC WELDER PERFORMANCE QUALIFICATION
MAINTENANCE PROGRAM MANUAL

PROGRAM TRANSMITTAL FORM

TO: _____ Date _____

Description of Transmittal: _____

- | | |
|------------------------------|-------------------------------|
| 1. Review/Comment/Acceptance | 2. Information Only |
| 3. Manual Change | 4. Program Manual Transmittal |

TO: COMMON ARC
2600 Keslinger Rd., Suite 16
Geneva, IL 60134
Fax: 630/232-9643

This will verify that the documents transmitted with this Program Transmittal Form have been accomplished as indicated below:

The documents have been inserted in Program Manual Number _____,
and the superseded revisions have been destroyed.

Program Manual Number _____ has been received and is in my
possession.

Name: _____

Date: _____

GLOSSARY

Audit Team Leader	An individual with sufficient auditing experience, as determined by the Operating Committee, to organize and direct an audit, report audit findings, and evaluate corrective action.
Authorized Inspection Agency or Agency	An agency authorized to perform inspections required by the ASME Boiler and Pressure Vessel Code.
BDS Number	The Boilermaker Delivery System Serial Number issued by the International Brotherhood of Boilermakers to its members.
Certificate of Authorization	A term as used in this Program meaning formal documented authorization granted by the ASME code to apply the ASME code symbol stamp(s); the National Board of Boiler and Pressure Vessel Inspectors to apply the National Board R stamp; or a State or Local jurisdiction to perform welded assembly, repairs or alterations of boilers and pressure vessels located in that State or Local jurisdiction.
Executive Administrator	An independent, contracted third party responsible for inputting data and providing updates as specified in the Program.
ISO-9000	An international standard or quality management and quality assurance program.
Local Union Lodge	The Local Union of the International Brotherhood of Boilermakers where the program is in use.
Participating Contractor	A Contractor participating in the program who is signatory to a continuing bargaining agreement with the International Brotherhood of Boilermakers Union and has signed a Participating Agreement.
Program	The Common Arc Welder Performance Qualification Maintenance Program in conjunction with the International Brotherhood of Boilermakers.
Revision	A change, correction or improvement in the Program under the procedures set forth in Section V which shall be uniform wherever the program is applied.
Unsatisfactory Performance	Unsatisfactory performance is the inability of a welder to consistently produce welds which conform to the predetermined specification requirements for a given job, or on an accumulative basis, for several jobs when the welder is working within a range of variables for which he is qualified.