Welder Performance Qualification Testing QMS Written Description Checklist

AB-540(b)
2026-07

Company Name: _____

Title of the written description of the management system or manual(s):

_____

Person responsible for the overall management of the Welder Performance Qualification testing program:

Name: _____ Title: _____

Telephone No.: _____ Fax No.: _____

Cell No.: _____ E-Mail: _____

The *"Welder Performance Qualification Testing"* document, AB-540 has been issued by the Alberta pressure equipment safety Administrator to specify requirements for Welder Performance Qualification Testing. In accordance with the requirements of PWR Sections 21 and 22, anyone who wants to conduct Welder Performance Qualification Testing in Alberta is required to obtain a Certificate of Authorization Permit from ABSA.

This checklist, AB-540(b), has been developed to assist in ensuring that the Quality Management System (QMS) written description, submitted by the applicant who applies for a Certificate of Authorization permit, is documented in accordance with AB-540.

Organizations who wish to make an application for obtaining a Certificate of Authorization Permit in accordance with the requirements of the Pressure equipment Safety Regulation Section 11, shall submit the following documents to ABSA:

- an Application Form AB-29,
- an AB-29(b) Form if applying for multiple shop locations to be certified under the same AQP number (all shops must operate under the same name),
- a completed AB-540a Welder Performance Qualification Testing – Scope and Responsibilities document,
- an ***electronic*** copy of the duly endorsed AB-540(b) document showing where each requirement of the AB-540 document has been addressed in the company's QMS, and,
- a draft copy of the written description of the QMS describing the Welder Performance Qualification Testing program.

NOTE: The use of the term "Welder" in this document shall mean Welder's, Machine Welding Operator's or Tack Welder's as applicable.

ABSA reviewer's comments:

ABSA Reviewer Initials: _____ Date: _____

Req. Doc. Ref.	AB-540 Component/Element	Manual Reference (Indicate Section number and paragraph number for all references)
5.0	**Requirements for the written description of the QMS or Manual(s)**	
5.1	**Title Page** *Note: Section 5.1 does not include requirements for the 'Title Page' of the written description or of a quality manual because it is not a document organizing guide. AB-524 stipulates requirements that must be addressed in a QMS. Inclusion of a Title Page to any credible document is common knowledge, however, guidelines for developing a written description of a QMS including a 'Title Page' are described in ISIO10013:2001 standard).*	
☐	The written description of the management system or manual(s) shall include a title page	
☐	The title page shall identify the name, address of the organization, manual number and revision status	
5.2	**Table of Contents**	
☐	Section 5.2 includes requirements for the 'Table of Contents' of the written description of a QMS or a manual because it is not a document organizing guide. AB-540 stipulates requirements that must be addressed in a QMS.	
5.3	**Scope and Application**	
☐	This section shall: • Include a statement that identifies the key purpose of the QMS and confirms compliance with the Safety Codes Act and Regulations;	
☐	• Define the scope of the QMS for Welder Performance Qualification Testing, and provide a brief description/identification of welding processes and ranges that will be included within the QMS;	
☐	• Include a statement that only registered welding procedure specifications will be used for Welder Performance Qualification Testing and;	
☐	• Include a statement with assigned responsibility to ensure the AB-540a document that is on file with ABSA will be maintained current;	
☐	• Identify if the QMS is for "own use" or commercial purposes. Note: If an organization does not have a shop, and undertakes field activities only, the organization shall indicate that the activities undertaken are at field sites in Alberta controlled from an office address of the organization.	
5.4	**Definitions of Terms and Acronyms**	
☐	Terms and acronyms used within the Welder Performance Qualification Testing written quality management system are defined.	

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5.5	**Organization**	
☐	This section shall: • Include a statement that management will ensure that roles, responsibilities and authorities are defined and are communicated within the organization and	
☐	• Include organization chart(s) that identify positions that are relevant to the Testing Organization scope, with the reporting structure illustrated.	
5.6	**Statement of Authority and Responsibility**	
☐	The following statements shall be made: • That the written QMS covers the information specified in this AB-540 document and accurately describes the QMS used by the company;	
☐	• a statement that the QMS has the full support of management who will ensure that adequate resources, including competent personnel, are provided to implement and maintain the program;	
☐	• Define the title of the person designated as the individual responsible, to have overall responsibility for the QMS (may be the QCM and/or Welding Examiner); with an explanation that this person, irrespective of other duties, has sufficient and well-defined responsibility along with the authority and the organizational freedom to identify, initiate, recommend and provide solutions related to Welder Performance Qualification Testing and responsibility for the implementation and maintenance of the QMS and has direct access to, and support from, top management to resolve any Welder Performance Qualification Testing barriers;	
☐	• a statement appointing the Welding Examiner who is responsible for conducting and supervising the Performance Qualification Testing of Pressure Welder's, Pressure Tack Welder's or Machine Welding Operator's and	
☐	• Signature (with date) of the senior management. Note: A new Statement of Authority document signed by senior management, with the current date, is required at the time of renewal of the certification.	

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5.7	**Management's Responsibilities**	
☐	This section shall: • Include a statement that management is committed to the development and implementation of a successful QMS and to continually improve its effectiveness;	
☐	• Establish that top management will review the QMS at appropriate intervals to ensure its continued suitability and effectiveness, and that records of such reviews will be maintained. If an Organization has less than five employees, formal documentation of such reviews is not necessary;	
☐	• Include a statement that management shall ensure that appropriate communication processes are established within the organization to ensure compliance with the legislation and the effectiveness of the QMS. These processes shall include information on the legislation and issues that may impact Welder Performance Qualification Testing;	
☐	• Include a statement that the Testing Organization shall determine and provide adequate competent human resources and the necessary facilities and equipment to effectively implement the QMS;	
☐	• Ensure that procurement documents are maintained for subcontracted activities that are key to the success of the QMS, and provide clear direction regarding the scope, responsibilities and requirements;	
☐	• Ensure that the Welding Examiner(s) has the necessary qualifications, experience, ability and education and holds a valid Welding Examiner Certificate of Competency issued by ABSA and	
☐	• State that management will ensure the QMS remains in compliance with the requirements of this document, SCA, Regulations and applicable codes throughout the term of the certification ensure a file for each Welding Examiner containing all relevant documentation including a letter of appointment signed by a company official.	
5.8	**Quality System Documentation**	
☐	Written description shall ensure: • All changes of documents or amendments to documents are controlled by the correct authorization and processed in a manner which will ensure timely availability at the appropriate location. This shall include ensuring that current versions of the quality manual are provided and accepted by an ABSA SCO before implementation;	
☐	• The revision status of the QMS and all documents are identified;	

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☐	• The necessary welding procedures are developed, qualified and registered with ABSA in accordance with all Code and Jurisdictional requirements and	
☐	• Registered welding procedures are made available to and reviewed with the welder.	
5.9	**Purchasing and Material Control**	
	5.9.1 Purchasing	
☐	Written description shall: • Specify purchasing responsibilities;	
☐	• Specify the process for purchasing the materials and ensure conformance to the material requirements as required by welding procedure;	
☐	• Specify the process for controlling purchasing documentation;	
☐	• Ensure that all material is ordered to ASME or ASTM material specification including grade, size thickness or schedule;	
☐	• Ensure that all welding consumables are ordered to a SFA specification and AWS Classification and	
☐	• The type and extent of service required are defined, including certification as applicable, (i.e. NDE Services).	
	5.9.2 Receiving	
☐	Written description shall address the following activities: • Specify receiving responsibilities;	
☐	• Specify the process for receiving inspection in accordance with purchase order and ensure conformance to the material specification and	
☐	• A process is established for managing customer supplied material.	
	5.9.3 Material Control	
☐	Written description shall address the following activities: • Specify the process for storage and issuing material and	
☐	• Specify process for maintaining test coupon material traceability.	

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5.10	**Performance Qualification Testing**	
	5.10.1 Eligibility	
☐	Written description shall address the following activities: • Validate the candidate's identity through the use of Government issued picture ID and	
☐	• Ensure the candidate has a Pressure Welder's, Machine Welding Operator's or Tack Welder's Certificate of Competency and retain a copy for records,	
	5.10.2 Initiation	
☐	Written description shall address the following activities: • Initiate a Welder Performance Qualification Record (i.e. AB-76A/B);	
☐	A welding and test procedure shall be established and reviewed with the candidate. The procedure shall address safety rules, time limit, testing protocol, expectations and evaluation and acceptance criteria;	
☐	Registered welding procedure specification (including PQRs) are to be available and reviewed with the candidate;	
☐	• The Welding Examiner shall review and understands the essential variables for the welding procedure and process(es);	
☐	• Ensure welding procedure is within the scope for process and ranges as defined in the written QMS;	
☐	• Ensure the polarity, voltage and amperage of welding machines are checked for accuracy using calibrated meters and activity documented;	
☐	• Ensure material (including customer or candidate supplied) is supported with the necessary documentation and in accordance with the parameters of the welding procedure;	
☐	• Ensure guided bend testing jig is in accordance to ASME Section IX;	
☐	• Issue weld coupon and identify marking process unique to the welder and	
☐	• Identify and review the acceptance and rejection criteria associated with performance testing activities.	
	5.10.3 Performance Testing	
☐	Written description shall address the following activities: • Verify the joint preparation including land and gap;	
☐	• Assess the tack welds for length and feathering;	

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☐	• Check the position of the test coupons;	
☐	• Verify welding machine set-up including voltage/amperage for specific electrode size;	
☐	• Verify welding gas composition and flow rates;	
☐	• Complete the applicable section of the Welder Performance Qualification Record (i.e. AB-76A/B);	
☐	• Monitor the root pass to ensure it is done in the correct position and direction, and assess the root pass for quality (penetration, fusion, undercut, profile and spatter), and deposit thickness as necessary and	
☐	• Monitor the hot pass, fill and cap to ensure welding is done in position, progression and within the prescribed time frame.	
	5.10.4 Assessment	
☐	Written description shall address the following activities: • Assess the weld quality of the completed coupon by examining the weld for fusion, penetration, reinforcement, weld profile, arc strikes, weld width and undercut;	
☐	• Identify the test specimens to be cut out and die stamp using positive identification traceable to the candidate;	
☐	• Establish process if volumetric NDE will be used to qualify weld, die stamp using positive identification traceable to the candidate and examination report;	
☐	• Monitor specimen preparation;	
☐	• Examine specimen acceptability for width and thickness;	
☐	• Perform the required bend tests;	
☐	• Assess the acceptability of guided bend tests against ASME Sect IX acceptance criteria;	
☐	• Ensure ASME Section IX requirements are met when volumetric NDE is used for Performance Qualification Testing;	
☐	• Review volumetric NDE film and/or examination reports when used for Performance Qualification Testing, film must come with an examination report;	
☐	• Complete the Welder Performance Qualification Record (i.e. AB-76A/B) with results;	

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☐	• Establish and provide a sample of the Welder Performance Qualification Card to be used and issued to the welder. See Exhibit 3 in Section 6.3 for a Sample Welder Performance Qualification Card;	
☐	• Define process and controls for managing and issuing electronic Welder Performance Qualification Cards if so used;	
☐	• Issue and sign a Welder Performance Qualification Card if the test is satisfactory;	
☐	• Identify process to manage failed coupons that are to be maintained for a minimum of 30 days after completion of the test;	
☐	• Identify process to manage passed coupons;	
☐	• Immediate retests will be conducted to ASME Section IX and Alberta Regulations requirements;	
☐	• Ensure the Welder signs the Welder Performance Qualification Card;	
☐	• As applicable, the manufacturer representative has certified the Welder Performance Qualification Record, and	
☐	• Ensure process includes informing the candidate who is not satisfied with the Performance Qualification Test, that they may make a written appeal to the Administrator of ABSA.	
	5.10.5 Duplicate Welder Performance Qualification Cards	
☐	Written description shall address the following activities: • Define the process to be followed for issuing duplicate WPQ cards;	
☐	• Provide a sample copy of the WPQ duplicate request form; see Exhibit 4 in Section 6.4 for a Sample Request for Duplicate Welder Performance Qualification Card;	
	• Ensure record of the previous successful WPQ test is on file and	
☐	• The replacement card must expire on the same date as the original.	
5.11	**Additional Requirements for Commercial Testing**	
	5.11.1 Quality Management System Requirements	
☐	A Stand-Alone QMS manual that addresses all the requirements of this AB-540 Requirements Document is provided.	

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	5.11.2 Competency and Training	
☐	Written description shall address the following activities: • Identification of experience, qualification and training requirements for individual jobs or positions that are critical to QMS implementation;	
☐	• Identification of the training programs or other training resources that are used for training, (i.e. Welding Examiner In-Training), and	
☐	• Include the process describing how competency assessment and reassessment will be performed.	
	5.11.3 Safety	
☐	*A process for performing and documenting a shop/field safety orientation is used.*	
	5.11.4 Internal Audits	
☐	Written description shall address the following activities: Describe the process for planning and documenting the internal quality system audits to verify compliance with the criteria within this AB-540 document, and for measuring the effectiveness of the QMS;	
☐	Describing that the personnel performing the audits are suitably qualified and independent from the functions being audited and	
☐	Describing the process for tracking issues and employing corrective and preventative actions.	
5.12	**Volumetric Non Destructive Examination**	
☐	Written description shall address the following activities: • Assign responsibilities for the implementation and maintenance of the NDE examination procedures;	
☐	• NDE provider shall be appointed and have a SNT-TC-1A level III examiner on staff to be responsible for NDE procedures and supervise examiner certification and training;	
☐	• All examination will be done under the supervision of a level II or level III examiner;	
☐	• All interpretation will be done by a level II or level III examiner;	
☐	• All personnel performing NDE must be qualified and certified in accordance with SNT-TC-1A;	
☐	• Process for notifying the examiners of NDE requirements and identifying the welder and welds to be examined;	

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☐	• Responsibility for reviewing the qualifications of NDE examiners and their company's written procedures and ensuring copies of qualifications and procedures are retained on file are to be defined;	
☐	• Responsibility for reviewing all volumetric NDE examination reports and radiographic film when applicable and ensuring that volumetric examinations are traceable to the welder and weld coupon and	
☐	• Interpretation of volumetric examination must be performed to ASME Section IX.	
5.13	**Heat Treatment**	
☐	Written description shall address the following activities: • Assign responsibilities for the implementation and maintenance of the Heat Treatment procedures;	
☐	• Verifying that heat treatment procedures are adequate; including location of thermocouples, and calibration records for measuring instruments;	
☐	• Ensure that the Heat Treatment instructions are prepared and supplied to the Heat Treatment contractor;	
☐	• Ensure that the test coupons designated for Heat Treatment are identified;	
☐	• Ensure that the Heat Treatment activities are executed in accordance with the provided instructions;	
☐	• Ensure that upon completion of the Heat Treatment of the test coupon, it is inspected for damage and to confirm identification, and the documentation received from a Heat Treatment organization is verified and	
☐	• Review documentation and maintain Heat Treatment charts, calibration records, etc. in the applicable file.	
5.14	**Control of Measuring and Test Equipment**	
☐	Written description shall address the following activities: • The controls to ensure accuracy of monitoring and measuring devices, which are controlled by the Testing Organization are described;	
☐	• The controls to ensure accuracy of monitoring and measuring devices, which are controlled by contractors, are described and	
☐	• Calibration intervals are described.	
5.15	**Corrective and Preventative Action**	

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☐	Written description shall address the following activities: • The process to identify and manage Issues of Non-Conformance involving Welder Performance Qualification Testing and/or the QMS implementation is identified and	
☐	• Method for documenting, controlling and tracking the completion of non-conformances are described.	
5.16	**Record Retention**	
	5.16.1 Administrative Records	
☐	Written description shall address the following records to be maintained: • Testing application, if used, • Quality Management System written program, revisions and approvals, • Management review of the QMS program. Organizations employing less than 5 employees or contract personnel are not required to address this item, • Welder testing log, • Welding Examiner(s) appointment, training, competency and certifications, • Training, experience and competency for all positions performing activities impacting program, • Material purchasing, receiving records and MTRs, including that of customer supplied material, • Verification of testing equipment i.e. weld machines, bending jig conformance to ASME Section IX, • Non Destructive Examination Company appointment, procedures and NDE Technician records, • Non conformance, corrective and preventative action reports, • Calibration records and • Complaints.	

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	5.16.2 Welder Performance Testing	
☐	Written description shall address the following records to be maintained: • Safety orientation, • Alberta Pressure Welder's, Machine Welder's or Tack Welder's Certificate of Competency, • Welder unique identifier, • Welding procedure and PQR as applicable, • Record of Welding Examiner monitoring of testing activities. See Exhibit 3 in Section 6.3, • Welder Performance Qualification Record i.e. AB-76, • Volumetric NDE requests, film and examination reports, • Copies of signed Welder Performance Qualification cards, • Heat treatment requests and charts as applicable and • Applications for duplicate Welder Performance Qualification cards.	
5.17	**Safety Codes Officer**	
☐	The written description of the QMS will identify that an ABSA Safety Codes Officer has free access to all areas where Performance Qualification Testing of Welders/Machine Welding Operators is being conducted.	
☐	They will be given free access to facilities, materials and documents pertaining to Welder/Machine Welding Operator Performance Qualification Tests described in this QMS Manual.	