

QUALITY CONTROL PROGRAM MANUAL

Class REF Contractor Licence

Boilers, Pressure Vessels, and Refrigeration

Coast Mountain Refrigeration Ltd.

Unit 104, 19320 94th Avenue, Surrey, BC V4N 4E6

Contractor Licence No. LRF-0024817 · Class REF

Scope preview: *Installation, maintenance, repair, and alteration of refrigeration systems, plants, and equipment, including construction of refrigeration pressure piping and installation of pressure vessels associated with refrigeration plants, performed at customer field locations in British Columbia and administered from the head office, conforming to CSA B52 and following applicable referenced codes (CSA B51, ASME B31.5, NBIC NB-23).*

Issue date	June 13, 2026	Edition	01
Revision	00	Copy status	CONTROLLED COPY

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Manual approval (contractor): _____ name _____ signature _____ date

Accepted (Technical Safety BC): _____ name _____ signature _____ date

1 Approval and Revision History

This manual documents the Quality Control Program (QCP) of Coast Mountain Refrigeration Ltd. for regulated work performed under its Class REF contractor licence (LRF-0024817). It is maintained by the Quality Control Manager and is submitted to Technical Safety BC for acceptance before implementation, and again before each revision is implemented.

1.1 Revision history

Ed.	Rev.	Date	Description of revision	Approved by
01	00	June 13, 2026	Initial issue for Technical Safety BC acceptance.	Marcus Lindgren, QCM

How revisions are marked: Revised text carries a vertical change bar in the margin and an incremented revision number on the affected section and on the Table of Contents. The revision history is updated for every change before the revised manual is submitted to Technical Safety BC.

1.2 Manual approval (contractor)

The undersigned, holding the highest authority on the organizational chart (Section 6), approves this Quality Control Program manual and confirms management's full support for its implementation.

David R. Whitfield, President · Signature · Date

1.3 Technical Safety BC acceptance

Reserved for Technical Safety BC. This Quality Control Program manual is accepted as meeting the requirements for a Class REF contractor licence.

Name and title · Signature · Date

2 Definitions and Abbreviations

The following abbreviations, titles, codes, and terms are used throughout this manual.

Term	Definition
Act	Safety Standards Act (British Columbia)
Regulation	Power Engineers, Boiler, Pressure Vessel, and Refrigeration Safety Regulation
ASME	American Society of Mechanical Engineers
CSA B52	Mechanical Refrigeration Code
CSA B51	Boiler, Pressure Vessel, and Pressure Piping Code
ASME B31.5	Refrigeration Piping and Heat Transfer Components
ASME BPVC Sec. VIII	Rules for Construction of Pressure Vessels
ASME BPVC Sec. IX	Welding, Brazing, and Fusing Qualifications
NBIC NB-23	National Board Inspection Code (repairs / alterations)
BPS	Brazing Procedure Specification
Brazer	Individual qualified as a brazer under CSA B51 / ASME Section IX
BSO	Boiler Safety Officer employed by Technical Safety BC
CoC	Certificate of Conformance
CRN	Canadian Registration Number
CSA	Canadian Standards Association
ITP	Inspection and Test Plan
MTR	Material Test Report
NCR	Non-Compliance Report
NDE	Non-Destructive Examination
NPS	Nominal Pipe Size
PO	Purchase Order
PQR	Procedure Qualification Record
QCI	Quality Control Inspector
QCM	Quality Control Manager (the Operations Manager for Coast Mountain Refrigeration Ltd.)
QCP	Quality Control Program
RTA	Recognized Test Administrator
SO / Safety Officer	Technical Safety BC Safety Officer
TSBC	Technical Safety BC
WPS / WPQ	Welding Procedure Specification / Welding Performance Qualification

3 Scope of Licence

3.1 Licence class and authorized scope. Coast Mountain Refrigeration Ltd. holds (or has applied for) a Class REF contractor licence issued by Technical Safety BC, licence number LRF-0024817. All regulated work is performed strictly in accordance with the scope of work for a Class REF licence and in compliance with the terms and conditions of the licence, the Act and Regulation, and the adopted codes.

Table 1. Class REF scope of work (per the Regulation schedule)

Class REF reference	Scope of work
Refrigeration systems and plants	Installation, maintenance, repair and alteration of refrigeration systems, plants, and equipment; including construction of refrigeration pressure piping, and installation of pressure vessels associated with refrigeration plants. Conforming to CSA B52 and following any applicable referenced code(s), i.e., CSA B51, ASME B31.5, National Board NB-23.

3.2 Detailed scope of regulated work

Coast Mountain Refrigeration Ltd. employs 9 personnel in regulated refrigeration work and performs the following regulated activities under this licence:

- Installation
- Maintenance
- Repair
- Alteration
- Construction of refrigeration pressure piping
- Installation of pressure vessels

Typical systems and equipment worked on include:

- Commercial supermarket racks (CO₂ / HFC)
- Walk-in coolers and freezers
- Heat-pump and process cooling
- Ice-rink refrigeration plants

Representative refrigeration system: regulated pressure piping and pressure vessel

Construction of refrigeration pressure piping and installation of the liquid-receiver pressure vessel, conforming to CSA B52 and ASME B31.5. The relief device and its discharge piping are installed per CSA B52.

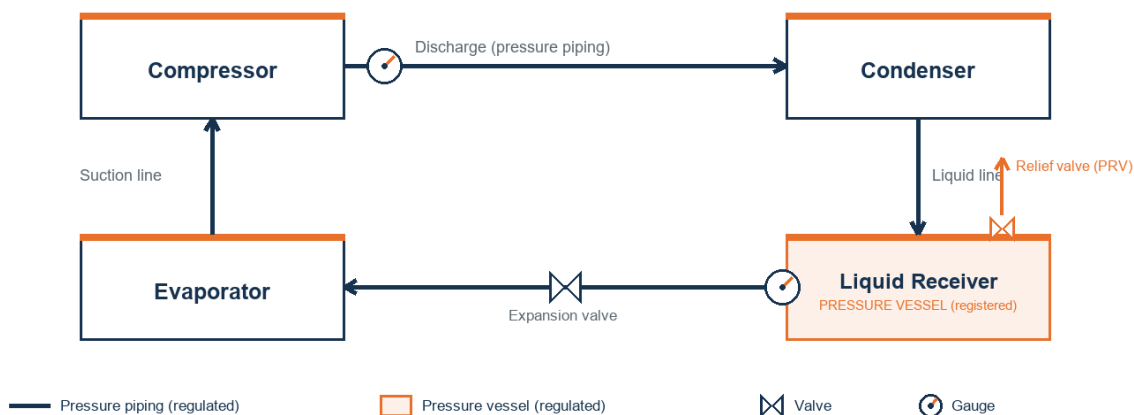


Figure 3-1. Representative system showing the regulated pressure piping and pressure vessel.

3.3 Applicable codes and standards

Regulated work conforms to the following adopted codes and standards, in the editions adopted by the Regulation in force at the time the work is performed:

Code / standard	Title / application
CSA B52	Mechanical Refrigeration Code
CSA B51	Boiler, Pressure Vessel, and Pressure Piping Code
ASME B31.5	Refrigeration Piping and Heat Transfer Components
ASME BPVC Sec. VIII	Rules for Construction of Pressure Vessels
ASME BPVC Sec. IX	Welding, Brazing, and Fusing Qualifications
NBIC NB-23	National Board Inspection Code (repairs / alterations)

3.4 Controls to prevent out-of-scope work

Before accepting any work, the Quality Control Manager confirms in writing that the work falls within the Class REF scope and the organization's capability. Work outside the licence scope is declined or subcontracted to an appropriately licensed contractor holding a Technical Safety BC-accepted quality control program. Specifically, Coast Mountain Refrigeration Ltd. does not perform ammonia (NH₃) refrigeration plants exceeding 25 kW (33.5 hp) of refrigerating capacity, boiler and Class B work, and any work outside the Class REF scope of work.

3.5 Subcontracted activities

Activity	Performed by	Manual reference
Design, drawings, and calculations	Owner / main contractor / end user	Section 7
Pressure welding and brazing	TSBC-licensed welding contractor	Section 10
Non-destructive examination (NDE)	Qualified NDE organization	Section 11
Heat treatment	Subcontracted	Section 12

3.6 Where work is performed and how the program is implemented

All regulated work is performed at customer field locations within British Columbia. Coast Mountain Refrigeration Ltd. does not operate a fabrication shop. The quality control program is implemented through controlled-copy access (electronic and printed), job-specific inspection and test plans, and the field location(s) controls described in Sections 7 through 14. The program is administered, and all records are kept, at the head office: Unit 104, 19320 94th Avenue, Surrey, BC V4N 4E6.

4 Statement of Authority and Responsibility

This manual implements the Quality Control Program of Coast Mountain Refrigeration Ltd.. It covers the installation, maintenance, repair, alteration, and construction of regulated refrigeration equipment and associated components in accordance with the Safety Standards Act, the Power Engineers, Boiler, Pressure Vessel, and Refrigeration Safety Regulation, the adopted ASME and CSA codes, and all other adopted codes and standards.

The Operations Manager is appointed as the Quality Control Manager (QCM). The QCM is responsible for the development, understanding, implementation, review, and acceptance of the Quality Control Program, and is granted sufficient, well-defined responsibility, authority, and organizational freedom to identify non-compliances and to take corrective action, including stopping work, independent of production and scheduling pressures.

Personnel and technical resources required to develop, implement, and continually improve the program are provided by the President. Any unresolved matter regarding compliance with this program, the Act and Regulation, or code requirements is brought to the President for resolution.

Management commitment: The President, as the highest authority on the organizational chart, confirms full support for the QCM and for this Quality Control Program, and commits to providing the resources necessary to implement and continually improve it.

Signed by the highest authority listed on the organizational chart (Section 6):

David R. Whitfield, President · Signature · Date

5 Manual Control

5.1 Responsibility. The Quality Control Manager is responsible for preparing, revising, distributing, and implementing this manual, and for submitting all revisions to Technical Safety BC for acceptance before they are implemented.

5.2 Preparation, revision, and distribution. The QCM approves every change by signing and dating the Approval and Revision History (Section 1). Each page shows the edition, revision number, and date; revised paragraphs are marked with a vertical change bar in the margin. The QCM issues revisions to every holder of a controlled copy and updates the Manual Distribution Record (Exhibit 01).

5.3 Method of revision. Revisions are made either by re-issuing the complete manual or by re-issuing only the affected pages with written instructions to insert the new pages and destroy the superseded ones. The revision level of each affected section is incremented and reflected on the Table of Contents.

5.4 Submission to Technical Safety BC. No revision is implemented until it has been submitted to, and accepted by, Technical Safety BC using the submission options on the Technical Safety BC website.

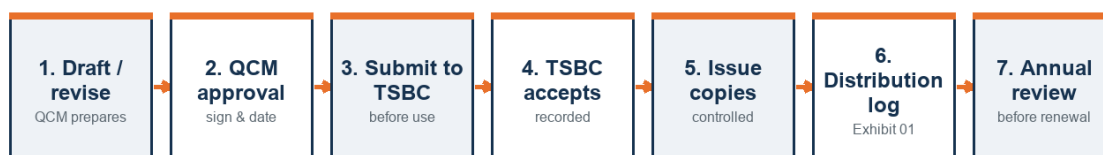
5.5 Review and currency. The QCM reviews this manual whenever the Act, Regulation, adopted codes, standards, directives, safety orders, or information bulletins change, and at a minimum annually before licence renewal, to ensure it accurately reflects current requirements (Safety Standards Act s. 24(3)(a) and the Technical Safety BC Directive: BPVR Contractor Licensing Requirements).

5.6 Controlled and uncontrolled copies. A controlled copy of this manual is available at every site where regulated work is performed and is provided to the Boiler Safety Officer on request. A controlled electronic copy may be provided in read-only form, modifiable only by the QCM and password-protected. Any printed or distributed copy not maintained under this control is marked "UNCONTROLLED, for information only."

5.7 Distribution record. The QCM maintains a list of all holders of controlled copies; see Exhibit 01, the Manual Distribution Record.

5.8 Internal audit and program review. At least annually, and before each licence renewal, the QCM conducts an internal audit of the quality control program against this manual and the current Act, Regulation, adopted codes, directives, and safety orders. The audit samples completed job records (material certifications, ITPs, pressure-test reports, NCRs, calibration records) to confirm the program is being followed, and identifies any corrective actions, which are tracked to closure on a Non-Compliance Report (Exhibit 08). The audit and any resulting manual revisions are recorded on the Program Review & Internal Audit Log (Exhibit 13). The program is also subject to inspection and audit by Technical Safety BC at any time, to which the QCM provides full access.

Manual and document control (Section 5)



Revised paragraphs carry a change bar; each page shows the edition, revision, and date. Uncontrolled copies are marked "for information only". A controlled copy is available wherever regulated work is performed and is shown to the Boiler Safety Officer.

Figure 5-1. Manual and document control, from revision through Technical Safety BC acceptance.

6 Organization

6.1 The chart below shows the organizational structure, functional responsibilities, levels of authority, and lines of communication for every position with responsibilities under this program, including lines of communication with subcontractors.

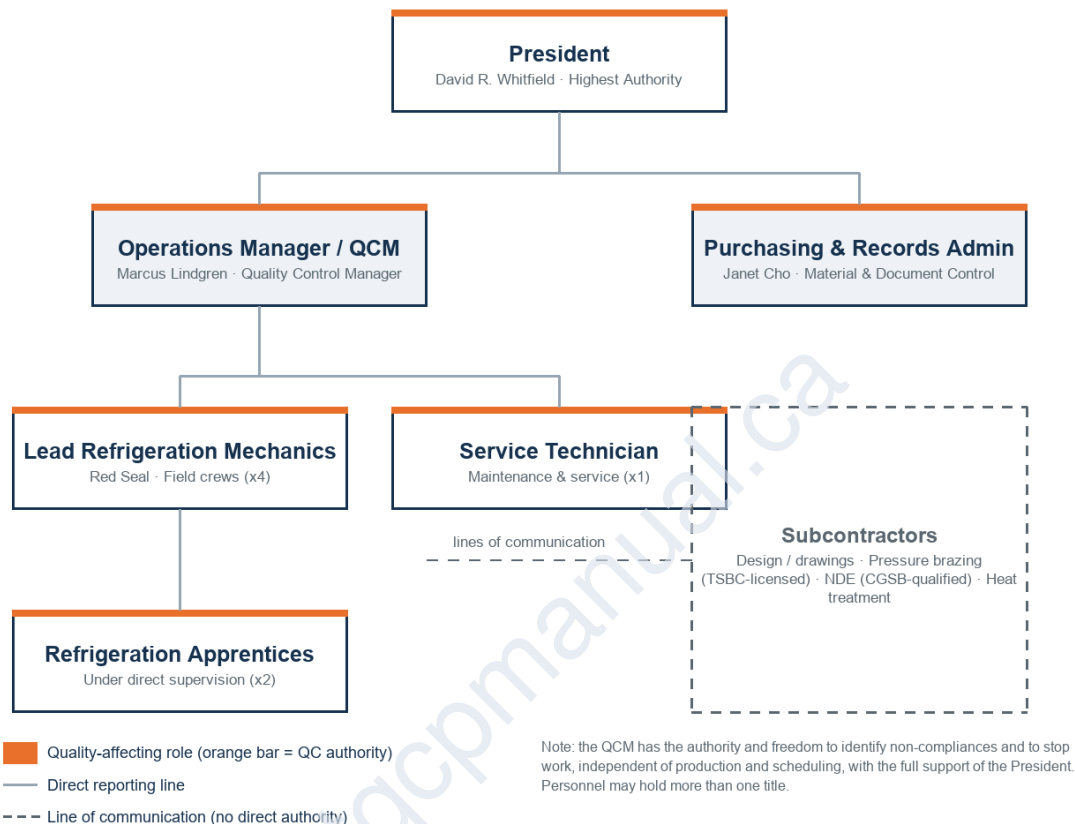


Figure 6-1. Organizational chart for Coast Mountain Refrigeration Ltd.

6.2 Duties and responsibilities of key personnel

Position	Key duties affecting quality
President (David R. Whitfield)	Highest authority; signs the Statement of Authority; provides resources and full support for the QCP; resolves escalated compliance matters.
Quality Control Manager / Operations Manager (Marcus Lindgren)	Owns the QCP: development, implementation, review, and submission of revisions to TSBC. Confirms scope before work is accepted, controls the ITP, liaises with the Boiler Safety Officer, dispositions non-compliances, and has the authority and freedom to stop work.
Certified Refrigeration Mechanics (Red Seal)	Perform and supervise regulated installation, repair, and alteration work; carry out examinations and pressure tests; complete job documentation. Crew composition: Lead Refrigeration Mechanic x4, Service Technician x1, Apprentice x2.
Purchasing & Records Administrator (Janet Cho)	Orders and receives material, verifies material certifications, maintains material traceability, and maintains quality records for at least seven (7) years.
Apprentices	Perform regulated work only under the direct supervision of a certified individual.

6.3 Multiple titles: A single individual may hold more than one title. In this organization the Operations Manager also serves as the Quality Control Manager. Titles used in this manual match the organizational chart and are used consistently throughout.

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7 Drawings, Design, Calculations, and Specifications

7.1 Design responsibility (minimum statement): Design requirements will be supplied to Coast Mountain Refrigeration Ltd. by the main contractor, owner, or end user responsible for the regulated equipment. Coast Mountain Refrigeration Ltd. will ensure the requirements of the Act, Regulation, and adopted codes are followed.

7.2 / 7.3 Minimum information and use of latest documents. Before regulated work begins, the QCM identifies the minimum information necessary to comply with the applicable code (drawings, specifications, design data, and the registered design or CRN where required), and verifies that the latest applicable documents are in the field package and used for installation, construction, examination, inspection, and testing.

7.4 Computer calculations. Where any computer program is used to prepare or check calculations for regulated work, the output is verified manually before use and the verification record and computer file are retained.

7.5 / 7.6 / 7.7 Review and responsibility. When design and drawings are supplied by others, the QCM reviews and approves those documents for completeness, code applicability, and registration status before they are released to the field crew, and specifies the materials to be used.

7.8 Obsolete documents. When drawings are revised, the QCM withdraws and destroys (or marks "SUPERSEDED") all obsolete copies from the field location(s) and issues the revised documents so that only current drawings are in use.

7.9 / 7.10 Design registration. Regulated work proceeds only after the original (and any altered) design of regulated equipment has been registered with Technical Safety BC as required by sections 82 and 84 of the Regulation and CSA B51. Where registration is required and not already in place, the QCM completes and submits the design for registration before work begins.

7.11 Field controls. At the work front the lead mechanic confirms the correct revision of each document, protects documents from damage, and returns the completed marked-up set to the QCM for the job records.

8 Material Control

This section, with SOP-08 below, defines how material, including welding and brazing consumables, is ordered, received, verified, identified, stored, traced, and released, so only the correct, code-compliant material is used for regulated work. The materials commonly used for regulated work are: Copper.

Material control and traceability (Section 8)



Non-conforming material is tagged HOLD (Exhibit 09), recorded on a Non-Compliance Report (Exhibit 08), and dispositioned by the Quality Control Manager before any use. When a piece is cut, the identification is transferred to each resulting part.

Figure 8-1. Material control and traceability, from purchase order to project completion.

SOP-08: Material ordering, receiving, and control procedure

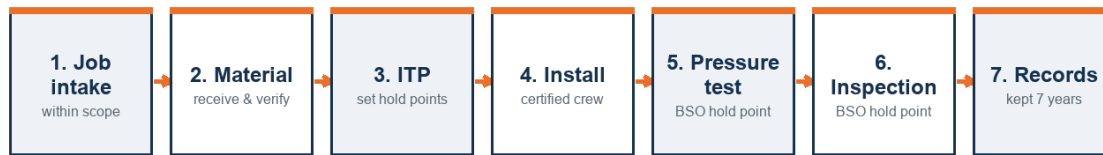
1. Ordering (element 8.1): The Purchasing & Records Administrator raises a Purchase Order (Exhibit 03) against the registered design and code requirements, specifying material grade/specification, size, and required documentation (MTR / certification).
2. Receiving inspection (8.1, 8.3, 8.4): On receipt, material is inspected against the PO and the code: grade marking, size, heat number, condition, and the presence of the required Material Test Report, material certification, or Certificate of Conformance. The receiver records the result on the Material Receiving Report (Exhibit 02) and verifies the certification against the physical material and the order.
3. Identification and traceability (8.5, 8.6): Accepted material is colour-coded and its heat number is recorded and maintained to the MTR. Traceability is preserved to project completion.
4. Transfer of identification (8.7): When a piece is cut into two or more pieces, the identifying marks (heat number / colour code) are transferred to each resulting piece before cutting.
5. Storage (8.5): Material is handled and stored to prevent damage, contamination, and mix-ups; consumables are stored per the manufacturer's recommendations (low-hydrogen and stainless electrodes in controlled storage).
6. Non-conforming material (8.8, 8.10): Material that does not conform to the registered design or applicable code is tagged "HOLD" (Exhibit 09), segregated, recorded on a Non-Compliance Report (Exhibit 08), and dispositioned by the QCM. Substitutions are permitted only when approved by the QCM with the Boiler Safety Officer's acceptance.
7. Release (8.2): Only material that has passed receiving inspection and is the intended, code-compliant material is released for regulated work.
8. Availability (8.9): Material certifications are retained with the job file and made available to the Boiler Safety Officer on request.

8.11 Field controls. For field work, material is transported and stored with its identification intact and is verified at the work front before installation.

Forms: Purchase Order (Exhibit 03); Material Receiving Report (Exhibit 02).

9 Installation, Repair, Alteration, or Construction

Regulated-work process (hold points at Test and Inspection)



Hold points (steps 5 and 6) require the Technical Safety BC Boiler Safety Officer to be present before work proceeds. Any non-compliance is tagged HOLD, recorded on a Non-Compliance Report, dispositioned, and re-inspected before acceptance.

Figure 9-1. Regulated-work process with Technical Safety BC hold points.

9.1 Scope and codes. The organization installs, repairs, alters, and constructs refrigeration systems, refrigeration pressure piping, and associated pressure vessels in accordance with CSA B52, CSA B51, ASME B31.5, and NBIC NB-23, and obtains the required installation permit(s) for each job.

SOP-09: Job execution and control procedure

1. Scope confirmation (9.2): The QCM confirms the work is within the Class REF scope and capability before it is accepted.
2. Responsibilities (9.3): The Purchasing & Records Administrator orders, receives, and inspects material and issues it for use; the lead mechanic examines and inspects regulated work at the field location(s).
3. Notification (9.4, 9.5): The QCM notifies Technical Safety BC in advance of starting regulated work and arranges for all required regulatory inspections to be performed by a Boiler Safety Officer (Regulation s. 61(1) and s. 86; Directive D-BP 2024-04).
4. Design registration (9.7): Where required by Regulation s. 82, the design is registered with Technical Safety BC before work begins.
5. Execution (9.6, 9.8): Regulated work is completed by certified individuals (apprentices only under direct supervision) following the applicable code and the equipment manufacturer's requirements for structural support, clearance and access, thermal expansion, piping, valves, controls, and over-pressure protection devices.
6. Examination and testing: In-process and final examinations and pressure testing are performed and recorded per Section 13 and the job ITP (Exhibit 04).
7. Documentation package (9.9): The QCM collates the permit, registered design / CRN, material certifications, ITP, examination and pressure-test records, and the applicable piping construction or repair/alteration report.
8. Liaison and access (9.10): The QCM provides the Boiler Safety Officer with unrestricted access to a controlled copy of this manual, to all quality records, and to every location where regulated work is performed.

Refrigeration-specific requirements (CSA B52)

In addition to the pressure-piping and pressure-vessel controls above, refrigeration work conforms to CSA B52, the Mechanical Refrigeration Code. The organization works with the following refrigerants: CO₂ (R-744), HFC / HFO blends. The lead mechanic confirms, for each job, that the refrigerant type and charge are within the limits for the occupancy and system type; that machinery-room ventilation, refrigerant detection, and emergency controls are provided where required; and that pressure-relief devices and their discharge piping are installed, sized, and registered in accordance with CSA B52 and the registered

design. Refrigerant is recovered, not vented, in accordance with the applicable federal and provincial requirements.

Where the organization works in refrigeration machinery rooms, it confirms that the machinery-room classification, ventilation, refrigerant detection and alarms, emergency stop and purge controls, and relief-discharge routing meet CSA B52 for the refrigerant and charge in use, and that any signage and access requirements are satisfied.

Each job is controlled through a Job Traveller / Process Sheet (Exhibit 14), which records the sequence of operations, the sign-off at each examination and test stage, and the link to the permit, registered design, material certifications, and test records, so the complete job package is traceable.

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10 Welding and Brazing Control

10.1 Minimum statement: Coast Mountain Refrigeration Ltd. will not conduct any pressure welding or brazing under this quality control program and will subcontract these responsibilities to a licensed contractor working to a Technical Safety BC-accepted quality control program. Coast Mountain Refrigeration Ltd. will ensure the requirements of the Act, Regulation, and adopted codes are followed.

When pressure welding or brazing on regulated equipment is required, the QCM verifies and records, before work begins, that the subcontractor:

- holds a valid Technical Safety BC contractor licence that includes pressure welding/brazing within the scope of its accepted quality control program;
- uses WPS/BPS registered with Technical Safety BC, supported by procedure qualification records (PQR);
- assigns only individuals holding a valid pressure welder/brazer Certificate of Qualification, limited to their certificate class, with continuity maintained;
- maintains weld/braze traceability (weld maps and welder/brazier ID marking).

The organization's pressure welding and brazing subcontractor is Lower Mainland Pressure Welding Ltd. (TSBC licence LWB-0098). The subcontractor's licence, WPS/BPS register, and welder/brazier continuity are recorded on Exhibit 10 and retained with the job file. The controls and documentation of the subcontractor's accepted program govern the welding and brazing work.

11 Non-Destructive Examination

11.1 Minimum statement: Coast Mountain Refrigeration Ltd. will not conduct any non-destructive examination under this quality control program and will subcontract these responsibilities to a qualified contractor working to a written practice including procedures. Coast Mountain Refrigeration Ltd. will ensure the requirements of the Act, Regulation, and adopted codes are followed.

The QCM determines, from the registered design and applicable code, whether NDE is required. When it is, the QCM appoints West Coast NDE Services Ltd. (Exhibit 11) and verifies and retains, with the job file for presentation to the Boiler Safety Officer, that:

- NDE personnel are qualified in accordance with CAN/CGSB-48.9712 / ISO 9712 and the applicable code;
- NDE is performed to written procedures demonstrated to meet the applicable code;
- NDE equipment is calibrated; and that documentation and records are prepared as the code specifies.

12 Heat Treatment

12.1 Minimum statement: Coast Mountain Refrigeration Ltd. will not conduct any heat treatment under this quality control program and will subcontract these responsibilities to a qualified contractor. Coast Mountain Refrigeration Ltd. will ensure the requirements of the Act, Regulation, and adopted codes are followed.

When heat treatment is required by the registered design or applicable code, the QCM verifies it is performed to written procedures and that the heat-treatment charts and thermocouple-attachment schematics are obtained from the subcontractor, retained with the job file, and made available to the Boiler Safety Officer on request.

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13 Examination and Inspection Program

13.1 / 13.2 Inspections and tests. Inspections and tests required by the Act, Regulation, and applicable codes are performed and recorded. Types performed include receiving inspection (Section 8), in-process and visual examination of joints, supports, and fit-up, and pressure testing.

13.3 Control of the plan. The QCM controls the Inspection and Test Plan (ITP, Exhibit 04), notifies the Boiler Safety Officer when required, specifies the pressure-test requirements, and monitors tests, performs examinations, and documents results.

13.4 / 13.5 Hold points. Before work starts, the ITP is presented to the Boiler Safety Officer to set inspection and hold points; the QCM notifies the Boiler Safety Officer in advance of reaching each designated hold point.

Inspection and Test Plan: stages, hold points, and sign-offs

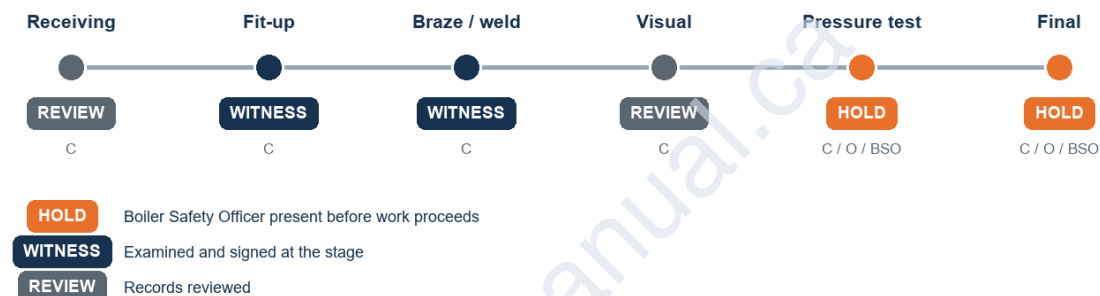


Figure 13-1. Representative inspection and test plan showing hold, witness, and review points.

SOP-13: Pressure testing procedure (summary; full procedure at Exhibit 06)

1. The QCM specifies the test medium (hydrostatic and pneumatic), the design and test pressures, hold duration, and acceptance criteria from the registered design and applicable code.
2. A calibrated gauge of the correct dial range (test pressure in the middle third of the dial) is selected from the Calibrated Equipment Register (Exhibit 07); its ID and calibration due date are recorded on the Pressure Test Report (Exhibit 05).
3. The test area is barricaded and personnel cleared; pressure is raised in stages with a hold and inspection at each stage. Pneumatic tests with stored energy above or below 1677 kJ follow Technical Safety BC's pneumatic-testing design-registration requirements.
4. The test pressure is held for the required duration and the system examined for leaks and distortion; results are recorded and witnessed (contractor, owner's inspector, and Boiler Safety Officer as applicable).
5. On completion the system is depressurized in a controlled manner and the Pressure Test Report (Exhibit 05) is signed.

13.7 / 13.8 Final inspection and declaration. Final inspections confirm all Act, Regulation, and code requirements are met. Every installation, repair, alteration, or construction activity includes a submitted declaration and is inspected by the Boiler Safety Officer before any repair, alteration, or construction report is presented for acceptance.

13.13 Visual inspection. Where code-required visual inspection is completed by the licensee, it is performed to the Visual Inspection Procedure (Exhibit 12) by competent personnel and recorded.

Acceptance criteria and code references

The following acceptance criteria are applied and recorded for each job; specific values are taken from the registered design and the applicable code edition in force at the time of the work.

Inspection / test	Acceptance criterion	Code reference
Material receiving	Correct grade and specification; heat number traceable to the MTR; no damage	CSA B51; SOP-08
Fit-up and alignment	Joint preparation and alignment per the registered design and isometric	ASME B31.5
Brazing of joints	Qualified BPS and brazer; sound, fully bonded joints	CSA B51; ASME Sec. IX
Visual examination	No code-listed indications (cracks, incomplete fusion, undercut, excess porosity)	ASME B31.5; Exhibit 12
Pressure test	Test pressure and hold time per code; no leakage, pressure drop, or distortion	CSA B52; ASME B31.5
Relief device	Set pressure not exceeding design; discharge piping sized and routed per code	CSA B52
Final inspection	All Act, Regulation, and code requirements met; declaration submitted	NBIC NB-23

Forms: Inspection and Test Plan (Exhibit 04); Pressure Test Report (Exhibit 05); Pressure Testing Procedure (Exhibit 06); Visual Inspection Procedure (Exhibit 12); Job Traveller (Exhibit 14).

14 Calibration

14.1 / 14.2 Program and status. Measuring and test equipment that affects the acceptance of regulated work, principally pressure-test gauges, is calibrated on a defined schedule. Each item carries a calibration sticker or tag showing its identifier and calibration due date and is listed on the Calibrated Equipment Register (Exhibit 07).

14.3 / 14.4 Records and gauges. Pressure-test gauges are calibrated annually by an ISO/IEC 17025-accredited calibration laboratory, traceable to a national standard, and the calibration date and frequency are recorded. The QCM maintains the calibration records.

14.5 Non-conforming equipment. Equipment found out of calibration is removed from service, tagged, and quarantined until recalibrated; any regulated work accepted since the last good calibration is reviewed for impact.

14.7 Availability. Calibration records are made available to the Boiler Safety Officer on request.

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15 Correction of Non-Compliances

SOP-15: Non-compliance control procedure

1. Identification (15.1): Any condition that does not comply with the Act and Regulation, the design and specifications, or the applicable codes is identified and physically tagged "HOLD" (Exhibit 09), and segregated where practical.
2. Recording (15.4): The non-compliance is recorded on a Non-Compliance Report (Exhibit 08) with its description, the clause affected, and where it was detected.
3. Disposition (15.2, 15.3): The QCM determines the disposition (rework, repair, use-as-is, or reject); the item cannot be considered compliant until the non-compliance is corrected or eliminated.
4. Notification (15.5): The QCM informs the Boiler Safety Officer of non-compliant conditions affecting regulated work for review and acceptance of the disposition.
5. Verification and closeout: The correction is verified, recorded on the NCR, and the "HOLD" tag is released by the QCM.

Forms: Non-Compliance Report (Exhibit 08); Non-Compliance / "HOLD" Tag (Exhibit 09).

16 Record Retention

16.1 / 16.2 Records maintained. The Purchasing & Records Administrator, under the QCM, maintains the records generated by this program at Unit 104, 19320 94th Avenue, Surrey, BC V4N 4E6. The records that may be required, their source, and their retention are:

Record	Source / exhibit	Retention
Permits and notifications to Technical Safety BC	Job file	7 years
Registered design / CRN documentation	Job file	7 years
Material certifications / MTRs and receiving records	Exhibit 02 / 03	7 years
Inspection and Test Plans and examination records	Exhibit 04	7 years
Pressure Test Reports	Exhibit 05	7 years
Visual / NDE / subcontractor verification records	Exhibits 10, 11, 12	7 years
Calibration records	Exhibit 07	7 years
Non-Compliance Reports and dispositions	Exhibit 08	7 years
Construction / repair / alteration reports & declarations	Job file	7 years
Manual distribution & internal-audit records	Exhibits 01, 13	Life of program

16.3 Retention period: All required records are retained for at least seven (7) years, as required by section 72(1)(a) of the Regulation, and are made available to the Boiler Safety Officer on request.

17 Exhibits

The forms below are referenced throughout this manual. Each carries the company name, logo, and contractor licence number, is marked "SAMPLE," and is completed per job. Technical Safety BC forms referenced in this manual are not reproduced here.

Exhibit	Title	Manual reference	Rev.
01	Manual Distribution Record	§5.7	00
02	Material Receiving Report	§8 / SOP-08	00
03	Purchase Order	§8 / SOP-08	00
04	Inspection and Test Plan (ITP)	§13.4	00
05	Pressure Test Report	§13 / SOP-13	00
06	Pressure Testing Procedure	§13 / SOP-13	00
07	Calibrated Equipment Register	§14	00
08	Non-Compliance Report	§15 / SOP-15	00
09	Non-Compliance / "HOLD" Tag	§15	00
10	Welder / Brazier Continuity Log	§10	00
11	NDE Subcontractor Appointment Letter	§11	00
12	Visual Inspection Procedure	§13.13	00
13	Program Review & Internal Audit Log	§5.8	00
14	Job Traveller / Process Sheet	§9, §13.10	00

EXHIBIT 01

Manual Distribution Record

Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 5.7)

Copy #	Holder (name / title)	Location	Ed. / Rev.	Date issued

EXHIBIT 02

Material Receiving Report

Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 8.1-8.4, 8.12)

Field	Entry
PO number / Job number	
Supplier	
Material description / specification	
Heat number(s)	
MTR / certification received (Y/N) and verified by	
Colour code applied	
Condition on receipt	

Accepted / Rejected (HOLD)	
Received & verified by (name / date)	

EXHIBIT 03**Purchase Order**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 8.1)

Field	Entry
PO number / Date	
Job / Project	
Supplier	
Material grade / specification	
Size / quantity	
Documentation required (MTR / CoC)	
Authorized by (QCM)	

EXHIBIT 04**Inspection and Test Plan (ITP)**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 13.4, 13.10)

Step	Activity / stage	Reference (code / drawing)	Acceptance criteria	H/W/R	Contractor	Owner's Insp.	BSO
1							
2							
3							
4							

H = Hold point · W = Witness point · R = Review point. Hold points require the Boiler Safety Officer to be present before work proceeds. Each row provides for the contractor's, the owner's inspector's, and the Technical Safety BC Boiler Safety Officer's sign-off and the date the examination was performed.

EXHIBIT 05**Pressure Test Report**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 13.6, 13.11)

Field	Entry
Company / Licence	Coast Mountain Refrigeration Ltd., Licence LRF-0024817
Job / Permit # / Location	
System tested / Registered design #	
Test type (hydrostatic / pneumatic) & medium	
Design pressure / Test pressure / Duration	
Acceptance criteria	
Gauge ID / Calibration due / Dial range	
Result (Pass / Fail)	
Witnessed by (contractor / owner / BSO)	

Signatures & dates

EXHIBIT 06**Pressure Testing Procedure**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 13.12)

Purpose: to define the safe, code-compliant method for pressure testing regulated refrigeration piping and equipment.

1. Confirm the registered design, test medium, design and test pressures, hold time, and acceptance criteria from the applicable code (CSA B52 / ASME B31.5 / CSA B51).
2. Select a calibrated gauge (Exhibit 07) with the test pressure falling in the middle third of the dial range; record its ID and calibration due date.
3. Isolate and prepare the system; for hydrostatic tests, fill and vent all air; for pneumatic tests, barricade the area, clear non-essential personnel, and raise pressure in stages with a hold and inspection at each stage.
4. Raise to the test pressure gradually; hold for the required duration; examine all joints and components for leakage and distortion.
5. Record the result on the Pressure Test Report (Exhibit 05); obtain contractor, owner's inspector, and Boiler Safety Officer sign-off as applicable.
6. Depressurize in a controlled manner; drain and reinstate the system; retain the report with the job file.

Safety: Pneumatic testing stores significant energy. Tests with stored energy above or below 1677 kJ follow Technical Safety BC's pneumatic-testing design-registration requirements. Only the QCM may authorize a pneumatic test.

EXHIBIT 07**Calibrated Equipment Register**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 14.3, 14.8)

Equipment / ID	Type	Range	Frequency	Last calibrated	Due

EXHIBIT 08**Non-Compliance Report (NCR)**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 15.1, 15.6)

Field	Entry
NCR number / Date	
Job / Permit #	
Description of non-compliance	
Code / design clause affected	
Detected by / stage	
Disposition (rework / repair / use-as-is / reject)	
BSO notified (Y/N) / acceptance	
Corrective action & verification	

Closed by (name / date)

EXHIBIT 09**Non-Compliance / "HOLD" Tag**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 15.7)**HOLD: DO NOT USE / DO NOT PROCEED**

NCR #	
Item / location	
Reason	
Tagged by / date	
Released by QCM / date	

EXHIBIT 10**Welder / Brazier Continuity Log**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 10.21)

Welder / Brazier ID	Process	WPS / BPS #	Last used (date)	Continuity OK

EXHIBIT 11**NDE Subcontractor Appointment Letter**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 11.11)

To: [NDE organization] Date: _____

Coast Mountain Refrigeration Ltd. (licence LRF-0024817) appoints your organization to perform non-destructive examination on the regulated work described below. By accepting, you confirm that your personnel are qualified to CAN/CGSB-48.9712 / ISO 9712, that examinations will be performed to written procedures demonstrated to meet the applicable code, that your equipment is calibrated, and that records will be provided for retention with the job file and presentation to the Technical Safety BC Boiler Safety Officer.

Job / Permit #: _____ NDE methods: _____

Accepted (NDE organization): _____ Date: _____

Authorized (Coast Mountain Refrigeration Ltd. QCM): _____ Date: _____

EXHIBIT 12**Visual Inspection Procedure**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 13.13)

Applies where code-required visual inspection is completed by the licensee.

1. Confirm the acceptance criteria from the applicable code and the registered design.
2. Ensure adequate lighting and access; clean the surface to be examined.
3. Examine joints, fit-up, alignment, supports, and welds/brazes for code-listed indications (cracks, incomplete fusion, undercut, porosity, distortion).
4. Record results, including any indication and its disposition; non-conformances follow SOP-15.
5. Sign and date the record; retain with the job file.

EXHIBIT 13**Program Review & Internal Audit Log**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 5.8)

Field	Entry
Review / audit date	
Conducted by (QCM)	
Scope reviewed (sections / job records sampled)	
Code / Regulation changes considered	
Findings / non-compliances (NCR #s)	
Corrective actions & target dates	
Manual revision required (Y/N), Ed./Rev.	
Closed by (name / date)	

EXHIBIT 14**Job Traveller / Process Sheet**Coast Mountain Refrigeration Ltd. · Licence LRF-0024817 · Class REF *SAMPLE, completed per job* (element 13.10)

Op #	Operation / stage	Reference (code / drawing)	Performed by	Date	Sign-off
1					
2					
3					
4					
5					

The traveller links the permit, registered design, material certifications, examination, and test records for the job, and accompanies the work from receiving through final inspection.

Appendix A Standard Operating Procedures

The standard operating procedures referenced in this manual are listed below. Each SOP is maintained under the same revision control as this manual (Section 5).

SOP	Title	Manual section
SOP-07	Design control procedure	§7
SOP-08	Material ordering, receiving, and control	§8
SOP-09	Job execution and control	§9
SOP-10	Welding and brazing control	§10
SOP-11	NDE control	§11
SOP-13	Pressure testing & examination	§13 / Ex.06
SOP-15	Non-compliance control	§15

Appendix B Element Compliance Matrix

Submitted with this manual to facilitate Technical Safety BC's review. Each element of Appendix B of guideline BRC-7031-03 is mapped to where it is addressed in this manual.

Element	Requirement (summary)	Applicability	Manual reference
1.1-1.4	Cover page: name, logo, address, licence class/number, date, edition, revision, controlled-copy status, scope preview	Yes	Cover
2.1-2.6	Scope: class, detailed scope, codes, out-of-scope controls, subcontracted activities, locations	Yes	§3.1-3.6
3.1-3.5	Statement of authority signed by highest authority; QCM authority and management support	Yes	§4; §1.2
4.1-4.5	Table of contents, revision history, contractor/TSBC approval blocks, glossary	Yes	TOC; §1; §2
5.1-5.7	Manual control: responsibility, revision method, submission to TSBC, annual review, controlled/uncontrolled, distribution list	Yes	§5; Ex.01
6.1-6.3	Organizational chart, duties of key personnel, multiple-title note	Yes	§6; Fig.6-1
7.1-7.11	Design: latest documents, computer-calc verification, registration (s.82/84), obsolete-document control	Yes (min. stmt)	§7; SOP-07
8.1-8.12	Material control: ordering/receiving, certifications, traceability, non-conforming material, receiving report	Yes	§8; SOP-08; Ex.02,03
9.1-9.10	Installation/repair/alteration/construction: codes, responsible persons, BSO inspections & notification, documentation, liaison	Yes	§9; SOP-09
10.1-10.21	Welding & brazing control	Subcontracted	§10; Ex.10
11.1-11.11	Non-destructive examination	Subcontracted	§11; Ex.11
12.1-12.8	Heat treatment	Subcontracted	§12
13.1-13.13	Examination & inspection: ITP, hold points, pressure testing, final inspection & declaration, visual inspection, job traveller	Yes	§13; SOP-13; Ex.04,05,06,12,14
14.1-14.8	Calibration: program, status/due-date, records, gauge calibration & frequency, non-conforming equipment, register	Yes	§14; Ex.07
15.1-15.7	Correction of non-compliances: system, responsibility, documentation, BSO notice, NCR & HOLD tag	Yes	§15; SOP-15; Ex.08,09
16.1-16.3	Record retention: records maintained, list of records, seven-year retention (s.72(1)(a))	Yes	§16
17.1-17.3	Exhibits: branded sample forms marked "SAMPLE," titles consistent, listed in exhibit table	Yes	§17

Organization name: Coast Mountain Refrigeration Ltd.

Licence: LRF-0024817

Date: June 13, 2026

Appendix C Submission Package & Application Cross-Reference

Per guideline BRC-7031-03 §5, Technical Safety BC reviews the quality control program manual together with a demonstration (mock-up) package of the completed forms used for the regulated scope of work. The complete submission for acceptance comprises:

#	Item submitted to Technical Safety BC	Status / reference
1	Completed Class REF contractor licence application form	Application form
2	This Quality Control Program manual (Edition 01, Rev 00)	Sections 1-17
3	Appendix B Element Compliance Matrix (this manual)	Appendix B
4	Demonstration (mock-up) package of completed exhibit forms for a representative job	Separate document
5	Evidence of certified individuals (Red Seal / pressure welder certificates, as applicable)	With application
6	Non-refundable application fee	Per TSBC fee schedule

Demonstration package: The demonstration package contains the same exhibit forms shown in Section 17, completed with representative entries for a job within the licence scope (for example, the installation of regulated pressure piping and a pressure vessel on a commercial system), so Technical Safety BC can assess how the quality control program is applied in practice.

On acceptance of both the manual and the demonstration package, and payment of applicable fees, Technical Safety BC issues the Class REF contractor licence (guideline §5).

Appendix D Pre-Submission Self-Audit Checklist

The Quality Control Manager completes this checklist before the package is submitted to Technical Safety BC, confirming that each item is present and accurate. It is the final readiness gate.

Done	Item to confirm before submission	Reference
	Cover page complete: name, logo, address, licence class and number, date, edition, revision, controlled-copy status, scope preview	Cover
	Scope matches the company's actual operations; out-of-scope controls stated (ammonia over 25 kW, etc.)	§3
	Statement of Authority signed by the highest authority on the organizational chart	§4
	Organizational-chart titles match the titles used throughout the manual	§6
	Each subcontracted activity shows its minimum statement and subcontractor verification	§7, 10, 11, 12
	All exhibits present, branded with company name and licence, and marked SAMPLE	§17
	Appendix B element matrix completed (organization name, licence, date filled in)	Appendix B
	Demonstration (mock-up) package completed for a real job the company can speak to	Separate document
	Evidence of certified individuals attached (Red Seal / pressure welder certificates as applicable)	With application
	Both signature blocks signed: contractor approval and Statement of Authority	§1.2, §4
	Annual review and internal-audit schedule set	§5.8
	Application form completed and application fee ready	Appendix C

Confirmed ready for submission by (QCM): _____ **Signature:** _____ **Date:** _____