

Engineered Pressure Enclosures (EPE)

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Table of Contents

1.0	INTRODUCTION.....	1
2.0	LIST OF DEFINITIONS & ACRONYMS	1
2.1	DEFINITIONS.....	1
2.2	ACRONYMS.....	3
3.0	BYLAWS, CODES & STANDARDS	3
4.0	REQUIREMENTS FOR THE USE OF EPE.....	4
4.1	REQUIREMENTS FOR EPE FITTING MANUFACTURERS	5
4.2	REQUIREMENTS FOR EPE INSTALLERS	5
5.0	RRIMR Procedure.....	5
5.1	ROOT CAUSE ANALYSIS	5
5.2	RISK ASSESSMENT	6
5.3	INSTALLATION PROCEDURE	6
5.4	MAINTENANCE & MONITORING	6
5.5	REMOVAL OF EPE	6
5.6	SPECIAL CONSIDERATIONS.....	7
6.0	EPE REGISTRATION REQUIREMENTS	9
6.1	CASE BY CASE EPE REGISTRATION	9
6.2	RRIMR QUALITY PLAN ACCEPTANCE FOR OWNER/USERS	10
	Appendix A	14

1.0 INTRODUCTION

This document is intended to regulate the use of Engineered Pressure Enclosures (EPE) in the Province of Manitoba. EPEs are a temporary solution, typically used to:

- a. Contain leaks on specific pressure equipment.
- b. Provide reinforcement to specific degraded pressure equipment, due to the effects of local corrosion, erosion, dents, and other mechanical, physical, or chemical impacts.

Refer to Section 4.0 "[REQUIREMENTS FOR THE USE OF EPE](#)" to determine the allowable limits of EPE use in the Province of Manitoba.

EPEs are primarily used in situations, when it is not practicable to immediately shut down pressure equipment to administer a permanent repair or alteration.

The owner/owner designate is responsible to ensure proper repairs or alterations (if deemed necessary) are completed to restore the pressure equipment to a safe and satisfactory operating condition upon the removal of an EPE.

In an attempt to harmonize the rules and regulations of pressure equipment amongst the Canadian Jurisdictions, the Province of Manitoba has decided to partially adopt the use of AB-521 document. The AB-521 "Requirements for Engineered Pressure Enclosures" is a detailed document created by the Alberta Boiler Safety Association (ABSA), superintending the use of EPEs in the Province of Alberta.

2.0 LIST OF DEFINITIONS & ACRONYMS

2.1 DEFINITIONS

Boiler External Piping: Means boiler external piping as defined in the ASME B31.1, Power Piping Code.

Canadian Registration Number: a registration number, allotted by a Provincial Regulatory Authority, that allows a boiler, pressure vessel, or fitting to be used in the Province.

Certificate of Authorization: A permit issued by the jurisdiction, allowing the holder to carry out pressure equipment related activities as defined in the permit's scope.

Engineered Pressure Enclosure: An enclosure used for containing a leak or reinforcing existing pressure equipment for a limited time until a proper repair or alteration is carried out.

Inspector: Means an inspector appointed under The Steam & Pressure Plants Act.

Integrity Management Program: A program for ensuring that all pressure equipment is designed, constructed, installed, operated, maintained, inspected and decommissioned in accordance with The Steam & Pressure Plant Act & Regulation.

Local Thin Area: refers to a specific region or spot on the pressure equipment's surface where the thickness of the material is lower than the required minimum thickness.

Nonboiler External Piping: means piping as defined in the ASME B31.1, Power Piping Code.

Owner Designate: an owner is allowed to designate in writing a person or an organization, to assume partial or full responsibility to fulfill the EPE requirements outlined in this document.

Owner: a person who owns, leases, or manages a plant.

Owner-user: an owner that has an Integrity Management Program in accordance with The Steam & Pressure Plant Act & Regulation, and has been issued a Certificate of Authorization.

Plant: a steam plant or pressure plant.

Pressure Equipment: Boiler, pressure vessel or pressure piping and their related appurtenances as defined in The Steam & Pressure Plants Act & Regulation.

Pressure Piping: All piping used in connection with the plants, boilers, and pressure vessels that meet the standards referred to in requirements of The Steam & Pressure Plant Regulation.

Pressure Plant: an installation designed or used for utilizing or confining, under pressure, any liquid or gaseous substances other than steam, and includes the compressor thereof and all appurtenances connected therewith, but does not include

(a) Those that have a capacity of less than 1 1/2 cubic feet, and

(b) Those that are operated subject to a pressure less than 15 pounds to the square inch;

Quality Plan: In the context of this document, a quality plan is a document, or several documents, that together specify quality standards, practices, resources, specifications, and the sequence of activities relevant to the use of EPEs.

RRIMR: is a procedure that includes Risk assessment, Root cause analysis, Installation procedure, Maintenance & monitoring and Removal confirmation date applicable to EPE.

Steam Plant: an installation designed or used for generating, utilizing, confining, or storing, under pressure, steam or hot water, including the boiler thereof and all appurtenances and appliances connected therewith, but does not include

(a) Those that develop less than three horse power,

(b) Those that are used for heating a building designed and constructed as a private residence intended to house not more than one family, and

(c) Those that are used for heating a building used solely for residential purposes and containing not more than two separate apartments or suites;

2.2 ACRONYMS

ACRONYM	MEANING
BEP	Boiler External Piping
BPV Inspector	Boiler & Pressure Vessel Inspector
CofA	Certificate of Authorization
CRN	Canadian Registration Number
LPI	Liquid Penetrant Inspection
LTA	Locally Thin Area
MPI	Magnetic Particle Inspection
NBEP	Non Boiler External Piping
O/U	Owner User
PE	Pressure Equipment
I.M.P	Integrity Management Program
PP	Pressure Piping
QP	Quality Plan
RRIMR Procedure	Root Cause, Risk Analysis, Installation, Maintenance & Monitoring, & Removal Procedure
RT	Radiographic Testing
UT	Ultrasonic Testing
VT	Visual Inspection

3.0 BYLAWS, CODES & STANDARDS

The below shown bylaws, codes & standards are enforced in their entirety, when considering the design, manufacturing, and install of an EPE in the Province of Manitoba.

- a. The Steam & Pressure Plants Act (C.C.S.M. c. S210) & Regulation (108/87 R).
- b. The Power Engineers Act (C.C.S.M. c. P95) & Regulation (40/92).
- c. CSA B51 Boiler, pressure vessel, and pressure piping code.
- d. ASME BPVC, Section I Rules for Construction of Power Boilers.
- e. ASME BPVC, Section II Materials.
- f. ASME BPVC, Section VIII, Div. 1 Rules for the Construction of Pressure Vessels.
- g. ASME BPVC, Section IX Qualification Standard for Welding and Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators.
- h. ASME B31.1 Power Piping Code.
- i. ASME B31.3 Process Piping Code.
- j. NBIC Part 2, Inspection.

k. NBIC Part 3, Repairs & Alterations.

Note: Additionally, widely accepted engineering standards (e.g. ASME PCC-2, ASME FFS-1) may be used.

4.0 REQUIREMENTS FOR THE USE OF EPE

EPEs are used to temporarily contain a leak on pressure piping components or reinforce a pressure piping component that has been subjected to local effects of corrosion/erosion or additional damage mechanisms as shown above, under [1.0 b\)](#).

EPE designs shall always be supported by sound engineering analysis, to ensure the following:

1. The risks attributed to the installation and operation of the EPE are known and addressed.
2. The probable root cause(s) for the damage mechanism, that invoked the use of an EPE is determined, and mitigated if reasonably practicable.
3. The possibility of introducing new damage mechanisms to the area surrounding or under the EPE are analysed and controlled. The new damage mechanism may take the form of significantly degrading, damaging, cracking, corroding or cause the pressure equipment contained to catastrophically fail.
4. A plan for managing the operational lifecycle of the EPE; including but not limited to the following: Installation, maintenance, monitoring, & removal.
5. The removal date of the EPE shall be based on assessing the pressure equipment damage mechanism and condition, the type and probability of introducing new damage mechanism due to the install and operation of the EPE.

Note: EPEs shall always be regarded as a last resort to containing or temporarily controlling a damage mechanism. It is highly advisable to perform any necessary repair/alteration on the pressure equipment when the damage is detected or observed.

An EPE is allowed for use in the Province of Manitoba to stop leaks or reinforce any type of pressure equipment, except the following:

- Boilers,
- Boiler proper and/or boiler proper piping as defined by the code of construction,
- BEP - except for specific cases that are allowed in [Section 5.6](#) of this document,
- ASME Section VIII, Division 1 vessels - except for specific cases that are allowed in Section 5.6 of this document,
- ASME Section VIII, Division 2 and 3 vessels,
- Any pressure equipment in public occupancy,
- Any pressure relief device
- Flanged joints connecting to a pressure relief device, and
- Any pressure equipment having a crack where crack propagation cannot be eliminated. Refer to ASME PCC-2.

4.1 REQUIREMENTS FOR EPE FITTING MANUFACTURERS

Fitting Manufacturers Outside of Manitoba: shall provide proof of a valid quality control program for the manufacturing of the EPE fitting:

- a. Manufacturers Inside of Canada: CofA issued by the jurisdiction having authority.
- b. Manufacturers Outside of Canada: Quality certificate issued by an independent third party agency acceptable to ITS (e.g. ISO 9001:2015).

Fitting Manufacturers Inside of Manitoba: shall have a valid CofA issued by the Province of Manitoba to manufacture EPEs.

4.2 REQUIREMENTS FOR EPE INSTALLERS

- a. Organizations that do not possess a registered quality program (specific to EPE installation) with ITS or any other Canadian jurisdiction, shall have their quality program submitted, reviewed and approved by ITS before performing installations of EPEs. Once the quality program is approved, an implementation audit is required.

The implementation audit will consist of the following:

- i. The submission of a mock-up EPE design for registration under the Case By Case EPE Registration ([Section 6.1](#)). The EPE design can either be welded or bolted depending on the scope of the EPE work as proposed in the submitted quality program.
- ii. Once the EPE design is registered with ITS, a site visit will take place to ensure, the EPE installation is performed according to the registered procedure.

Upon successful demonstration of the EPE install, a CofA is issued encompassing the approved scope of the quality program. The CofA is valid for 3 years, and shall be renewed triennially.

- b. Organizations that possess a registered quality program with another Canadian jurisdiction may have their program accepted in Manitoba. Additional requirements may be required to bring the program into alignment with specific jurisdictional requirements. An implementation audit will not be required, however during the triennial period of the CofA, a surveillance audit may be conducted consisting of an in-depth review of job file records specific to EPE work conducted.

Note: Pressure welders/brazers performing any work in MB, shall receive authorization prior.

5.0 RRIMR Procedure

A RRIMR procedure is a group of documents conveying evidence that the design, installation, operation, maintenance and decommissioning of EPE is performed according to good engineering practices and established industry codes. Therefore minimizing the inherent risk associated with the use of EPEs on pressure equipment. A RRIMR procedure shall include as a minimum the following documents:

5.1 ROOT CAUSE ANALYSIS

The owner or owner designate shall assess the damage on the PE & perform necessary NDE examination (e.g. VT, LPI, MPI, UT, and RT). The examination is required to determine the degree and scope of damage inflicted on the PE, in addition to determining a probable root cause of the damage mechanism.

The result of the risk assessment and the root cause will provide the owner with insight about the suitability of using an EPE to temporarily contain the damage mechanism. The root cause analysis report submitted to ITS, shall be accepted and signed by the owner/owner designate.

5.2 RISK ASSESSMENT

The owner or owner designate shall assess and accept the risk associated with the installation, maintenance and the removal of the EPE. The assessment shall clearly address the possibility of introducing new failure modes or additional stresses when the EPE is used to either to contain a leak or provide reinforcement against the degradation of PE. The risk assessment shall also include the remaining service life of the PE, and note other RRIMR and EPE's within the system under consideration. The risk assessment report submitted to ITS, shall be accepted and signed by the owner/owner designate.

5.3 INSTALLATION PROCEDURE

The manufacturer, installer or the owner/owner designate of an EPE shall submit a detailed installation procedure specific to the installation at hand, for registration. The installation procedure shall contain the sequential steps involved in the installation process, while showing the roles & responsibilities of each of the participating parties. The installation procedure submitted to ITS prior to implementation, shall be accepted and signed by the owner/owner designate.

Refer to [Section 4.2](#) to address the requirements for an EPE manufacturer and installer.

Each EPE installation shall encompass affixing a label on the EPE indicating the following minimum information:

1. CRN assigned to EPE.
2. Maximum Allowable Working Pressure (MAWP).
3. Maximum & Design Metal Temperature.
4. Minimum Design Metal Temperatures (MDMT).
5. Installation Date.
6. Removal Date.

5.4 MAINTENANCE & MONITORING

The owner must provide a detailed description of the maintenance and monitoring plan that will be implemented while the EPE is attached to the pressure equipment. The maintenance and monitoring procedure submitted to ITS, shall be accepted and signed by the owner/owner designate.

5.5 REMOVAL OF EPE

The owner/owner designate is responsible to:

- Provide EPE removal date in the RRIMR procedure in accordance with this document, and
- Remove the EPE on or before the stipulated date.

- Communicate with ITS upon the removal of the EPE from service.

It is worth noting that the EPE removal date shall be based on, but no limited to the following:

1. Analysis of potential added damage mechanisms or stresses due to the installation of the EPE.
2. Safety measures in place to prevent and mitigate catastrophic failures.
3. The damage mechanism under consideration, and means of progression.
4. The risk associated with failure of the EPE.
5. If other EPE(s) are installed on the same piping system.

Removal Timelines:

The removal of an EPE shall occur before or during the first shutdown, depending on the considerations shown above bullets 1 through 5, with a maximum time in service limited to the following:

- 2 years from installation for leak types; limited to the following (Only process piping and nonboiler external piping; Category D & Normal Fluid Service):
 1. Gasket failure in the flange joint
 2. Pinhole in a weld, pipe, or piping component
 3. Damage in a valve stem packing
 4. Pinhole in valve bonnet
 5. Potential future leak due to internal or external local corrosion or local erosion (LTA)
- 1 year for all other applications (e.g. Pressure vessel or boiler external piping EPEs).

5.6 SPECIAL CONSIDERATIONS

Additional considerations shall be adhered to for the following EPE installations;

Note: The requirements shown in the sections below are mandatory.

5.6.1 EPE INSTALLED OVER BEP

The use of EPE to contain leaks in BEP is limited to:

- Gasket leaks in flange joints located in BEP vent and drain lines;
- Pinhole leaks in BEP vent or drain lines or their welds;
- Valve stem packing leaks (for valves located in BEP vent or drain lines);
- Pinhole leaks in bonnets of valves located in BEP vent or drain lines; and
 - Potential future leaks in BEP vent or drain lines due to internal or external local corrosion or local erosion (LTA).

Except for vent and drain lines, EPEs shall not be used on any other BEP (e.g. main steam line, boiler feed water line, safety valve connections, etc.).

5.6.2 EPE INSTALLED OVER CRACKS

It is important to understand that cracks can form on pressure equipment due to improper design and unforeseen loading or damage mechanisms. The crack may or may not be stable based on the initiation and orientation of the crack. The owner is responsible to evaluate the crack stability. If the damage mechanism cannot be mitigated, then crack propagation is likely to happen. To seal leaks due to cracks, the RRIMR procedure shall include, as a minimum:

- The crack location and description, including crack orientation
- The crack dimensions (length, width, depth, and crack profile),
- The root cause analysis, which must address the conditions that led to the crack formation,
- Measures that will result in the elimination of crack propagation, so that the crack will not grow during the planned service life of the EPE, and
- Fitness-for-service assessment (level 3) stamped by a Professional Engineer.

Note 4: If the crack propagation cannot be eliminated, the EPE shall not be used, and the pressure equipment containing the crack shall be properly repaired.

5.6.3 EPE INSTALLED OVER LTAs

An EPE may be used to prevent possible fluid leaks when thinned portions of a pipe or pipe fittings are discovered, due to erosion or corrosion damage.

The owner is responsible to determine if the use of EPE is appropriate for pressure equipment with Local Thin Area (LTA) and if the installation of an EPE can be safely operated and removed in case of subsequent leaking. The owner shall evaluate the damage mechanisms and extent of the LTA before an EPE is considered. If the owner accepts the risk and approves the use of an EPE on pressure equipment with LTA, the requirements of this document, including the specific requirements of 5.6.3, shall be satisfied.

In this document, LTA considers local metal loss on the surface (inside or outside) of the pressure equipment where the length of an area of metal loss is of the same order of magnitude as the width. The maximum dimensions of LTA that may be enclosed by an EPE, shall be in accordance with Mandatory Appendix 32 of ASME BPVC, Section VIII, Division 1.

For example:

The depth of the LTA, the projected circumferential length of LTA in a cylindrical shell (C), and the projected axial length of LTA in a cylindrical shell (L) shall be as per Section VIII-1, Appendix 32, paragraphs 32-4 and 32-5.

If an EPE is planned to be installed on an LTA, then the RRIMR procedure shall include the following specific requirements:

- The LTA size, orientation, depth and location.
- The EPE shall be sufficiently sized to extend onto the undamaged area of the component with LTA. The owner shall demonstrate that the EPE is designed to contain leaks and to reinforce degraded pressure equipment with LTA as applicable for the installation.

- The owner must perform a structural analysis, as required.
- The contingency plan shall be provided to address how the owner would mitigate the leak in the area enclosed by an EPE. The contingency plan shall address either:
 - The immediate repair or
 - replacement of the leaking component, or
 - The safe temporary operation until the leaking pressure equipment is properly repaired or replaced.

5.6.4 EPE INSTALLED OVER PRESSURE VESSELS

The install of EPEs are only limited to the following cases, due to the possibility of introducing new failure modes or additional stresses:

- Gasket leaks in a flanged joint located between nozzles and attached piping flanges;
- Pinhole leaks in a nozzle or nozzle welds; or
- Potential future leaks in the nozzle due to internal or external local corrosion or local erosion (LTA) (Requirements of [Section 5.6.3](#) shall be satisfied).

Except for leaks in nozzles addressed above, the EPE shall not be used in the shell, heads, or any other pressure vessel parts (such as body flanges). The EPEs shall not be installed in any part of a pressure vessel due to cracks.

An EPE installation for the allowable scope shown above, is treated as an alteration and an ITS BPV inspector shall be notified before commencing any of the installation work, and shall sign off on an Alteration Report after the installation is complete.

The ITS BPV inspector shall also be notified after the removal of the EPE, to determine the need for additional inspection. Additional inspections may be required to evaluate any possible added damage inflicted on the pressure boundary due to the EPE install.

6.0 EPE REGISTRATION REQUIREMENTS

There are 2 methods to receive acceptance for the use of EPEs in the Province of Manitoba;

1. Case By Case EPE Registration (Section 6.1).
2. RRIMR Quality Plan acceptance for Owner/Users ([Section 6.2](#)).

6.1 CASE BY CASE EPE REGISTRATION

The Case By Case EPE Registration involves the following steps;

1. EPE Design Registration to obtain a valid CRN.
2. RRIMR Procedure Registration.

6.1.1 EPE DESIGN REGISTRATION

Before an EPE can be used in the Province of Manitoba, the EPE which is considered as a fitting; shall have a valid CRN (Registered as a category H fitting). The guideline for the CRN registration of fittings can be found at the following link:

https://www.gov.mb.ca/labour/its/pubs/its_20_003_electronic_submissions_guideline.pdf

6.1.2 RRIMR PROCEDURE REGISTRATION

In order to register a RRIMR procedure, the following documents shall be submitted:

1. Completed ITS ES Form-10.
2. Summary document providing the following details:
 - a. Nature of the defect and any relevant information (e.g. location, size).
 - b. Images of the defect (if practicable); otherwise a representative sketch or drawing.
 - c. Description of the component requiring an EPE.
 - d. Indicate if other EPEs are installed on the system.
3. Root Cause Analysis.
4. Risk Analysis.
5. Installation Procedure.
6. Monitoring & Maintenance Procedure.
7. Removal Date & EPE Removal Procedure.

Note: RRIMR procedures intended for EPEs installed on Pressure Vessels, shall include an R/A Form (ITS ES Form 01 - Repair and Alteration Report). Refer to Section 5.6.4 above.

RRIMR procedures shall be submitted electronically and meet the following:

1. Send the RRIMR procedure via email to QASupport@gov.mb.ca
2. The subject line shall read “RRIMR Procedure Registration_EPE CRN#-----_1 of 1”.
3. If multiple emails are needed for the submission, the subject line email number can be incremented (e.g. “1 of 2” & “2 of 2”).
4. Each submission email shall be in a PDF file format (20MB max), and separated by content type (Drawings only, calculations only, etc.).
5. Each PDF must be clearly labeled to indicate contents.

6.1.3 CASE BY CASE EPE REGISTRATION PROCESS FLOW

Please see [appendix A](#) for the process flow chart, which provides pertinent information for the Case By Case EPE registration and inspection requirements.

6.2 RRIMR QUALITY PLAN ACCEPTANCE FOR OWNER/USERS

Organizations possessing an I.M.P system and hold a valid Owner/User CofA, are allowed to develop and implement quality assurance processes (RRIMR Quality Plan) that manage the utilization of EPEs.

The intent of this option is to provide a timely response to temporarily address PE safety concerns; until a permanent Repair/Alteration is implemented. Additionally, a standardized process promotes

repeatable and efficient methodology to install, monitor and remove EPEs; once the effectiveness of the standardized process is demonstrated through an implementation audit ([Section 6.2.6](#)).

6.2.1 WHO CAN APPLY FOR THIS PROGRAM?

A Manitoba Owner/User that meets the following criteria:

- a. Holds a MB Owner/User I.M.P CofA.
- b. Developed & implemented procedures as part of their I.M.P system, addressing the requirements of this document.
- c. Demonstrated the effectiveness of the RRIMR QP through an implementation audit ([Section 6.2.6](#)).

6.2.2 SCOPE OF APPLICATION

- RRIMR QPs may be used in context for installation of:
 - a. EPEs on pressure piping systems.
 - b. EPEs on Boiler External Piping (BEP) as limited to provisions in [Section 5.6](#).
- RRIMR QPs **shall not be used** in context for installation of:
 - a. EPEs on pressure vessels.
 - b. EPEs on boilers.
 - c. LTAs falling outside the limits shown in Appendix 32 of Section VIII, Division 1 (32-4 & 32-5).
 - d. EPEs over cracks. Full design review and registration is required for such RRIMRs (As required by the Case By Case EPE Registration [Section 6.1](#)).

6.2.3 OWNER/USER RESPONSIBILITIES

- a. Identify, define, develop, and document the essential processes and procedures for appropriate and compliant RRIMR realization ([Section 6.2.4](#)).
- b. Participate and succeed in a quality assurance audit to demonstrate the implementation of the established RRIMR QP if required ([Section 6.2.6](#)).
- c. Resolve any identifiable gaps between the established PEIM system and the proposed RRIMR QP.
- d. Implement a record keeping system, where EPE documents are maintained and stored.
- e. Submit the completed RRIMR & ITS ES Form-10 to ITS, no later than the EPE installation date (For every EPE installation performed under the RRIMR QP). The documents shall be submitted to QASupport@gov.mb.ca. The subject line shall read “**RRIMR QP Completed Docs_ EPE CRN#-----_1 of 1**”.
- f. Communicating with ITS relevant information pertaining to necessary changes or revisions required for the RRIMR QP, to address any safety concerns.
- g. Designating a management representative assume the overall responsibility for the implementation and effectiveness of the RRIMR QP.

6.2.4 RRIMR QP MINIMUM REQUIREMENTS

A RRIMR QP shall meet the following elements:

- a. Management of change for the use of the EPE and development of the RRIMR.
- b. EPE review and acceptance.
- c. Risk assessment review and acceptance
- d. Root cause analysis and the damage mechanism identification.
- e. Review and acceptance for the root cause analysis and damage mechanism identification.
- f. Development or review, acceptance, and implementation of the EPE installation procedure.
- g. Development or review, acceptance, and implementation, of the EPE inspection, maintenance, and monitoring plan.
- h. Determination of the EPE removal date and safe execution of the EPE removal on or before the determined removal date.
- i. Submission of completed RRIMR procedures and pertinent documents to ITS ([Section 6.2.3.e](#))
- j. Development and implementation of a contingency plan, addressing issues occurring during install and operation of the EPE.
- k. Training, evaluation, acceptance, and documentation of the competency for all personnel involved in the RRIMR QP and EPE utilization.
- l. Development and implementation of appropriate corrective and preventative actions to bring the proposed RRIMR QP into alignment with the requirements of this document.
- m. Document and record maintenance, relevant to the affected pressure equipment, the RRIMR, and the EPE.
- n. Any other processes and procedures identified by the Owner-User.
- o. Evidence of RRIMR QP effectiveness:

The effectiveness of the RRIMR QP may be demonstrated through using previously registered RRIMR procedures under the Case By Case EPE Registrations as evidence. A minimum of 3 RRIMR Case By Case EPE Registrations are required to demonstrate proof of the proposed RRIMR QP effectiveness.

6.2.5 HOW TO APPLY FOR A RRIMR QP CERTIFICATE OF AUTHORIZATION

RRIMR QPs shall be submitted electronically and meet the following:

1. Send the RRIMR QP procedure via email to QASupport@gov.mb.ca
2. The subject line shall read “**RRIMR Quality Plan_Certificate of Authority – (Insert Company Name here) *New or Renewal_1 of 1**”
3. If multiple emails are needed for the submission the subject line email number can be incremented (e.g. “**1 of 2**” & “**2 of 2**”).
4. Completed ITS ES Form-03 – Certificate of Authorization Application form.

5. PDF of the RRIMR QP.
6. Each submission email PDF files (20MB max).
7. Each PDF must be clearly labeled to indicate contents.

Once a RRIMR QP is reviewed by ITS & identifiable gaps are address (if present), the organization shall proceed to scheduling an implementation audit (if applicable).

6.2.6 RRIMR QP IMPLEMENTATION AUDIT

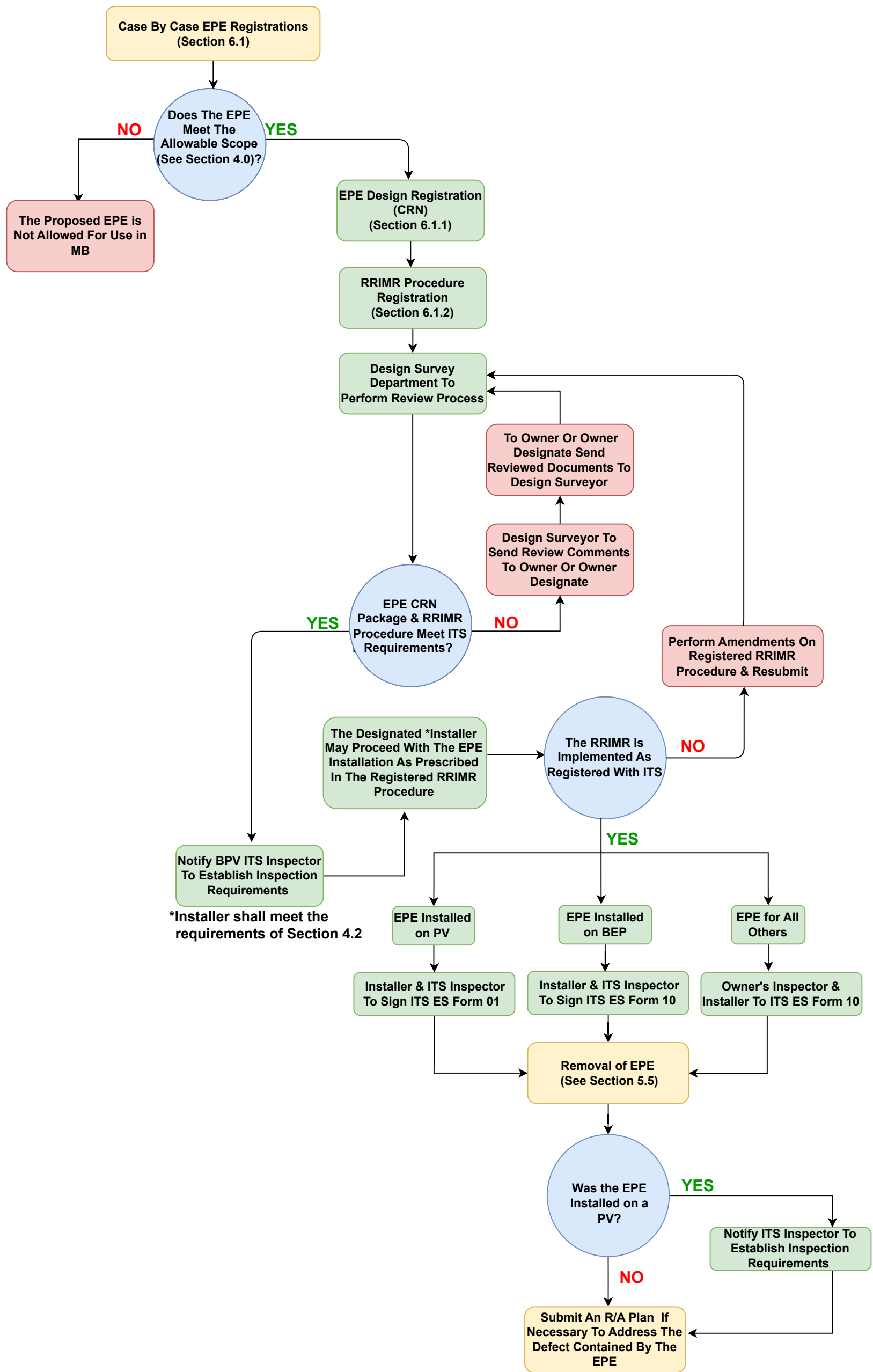
- If an O/U does not have the proposed RRIMR QP registered in another Canadian jurisdiction, an implementation audit is required. The audit is intended, as an evaluation of the conformance of the proposed RRIMR QP to how EPEs are actually managed on site.
- It is the responsibility of the O/U to communicate with ITS, in order to devise a suitable implementation audit plan depending on the scope of work proposed. Upon the successful completion of the implementation audit, the O/U is awarded a CofA encompassing the scope of EPE work proposed (Valid for 3 years). A ***surveillance audit** may be conducted, which consists of the review of job file records for any EPE work conducted during the 3 year period.
- If O/U possess an approved RRIMR QP from another Canadian jurisdiction, application to obtain a CofA from MB is required, however, an implementation audit is not required. Additionally, a ***surveillance audit** may be conducted to display the effectiveness of the EPE RRIMR QP.

6.2.7 RRIMR QUALITY PLAN PROCESS FLOW

Please see [appendix A](#) for the process flow chart, which provides pertinent information for the RRIMR quality plan registration and inspection requirements.

Appendix A

Case By Case EPE Registrations



RRIMR Quality Plan

