Manitoba

Inspection and Technical Services

Non-Application – Single Unit Factory Assembled Refrigeration Plants

ITS 25-005
August 20, 2025

Purpose:

Clarification on the Manitoba Power Engineers Regulation 40/92, section 2(c)(ii).

Manitoba Power Engineers Regulation 40/92, section 2(c)(ii):

The Power Engineers act and regulation do not apply to a refrigeration plant that is a single unit factory assembled plant not exceeding 350 kW (35 boiler horsepower) equivalent capacity.

Definitions:

Plant: A steam plant, pressure plant or refrigeration plant, or any combination thereof, and all appurtenances and appliances connected therewith.

Appurtenances: Notwithstanding CSA, all devices that are used in connection with pressure equipment, including safety devices, liquid-level gauging devices, valves, pressure gauges, fittings, and metering or dispensing devices.

Pressure Plant: means an installation designed or used for utilizing or confining, under pressure, any liquid or gaseous substance other than steam, including the compressor thereof and all appurtenances connected therewith.

Refrigeration Plant: A pressure plant in which refrigerants are vaporized, compressed and liquefied in their refrigerating cycle, including the complete installation of machinery and all appurtenances connected therewith.

Single unit factory assembled plant: A complete factory-made, factory-tested system and factory assembled, in a suitable frame or enclosure. The unit is fabricated and shipped in one section and does not have any refrigerant containing parts connected in the field other than by companion or block valves.

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Problem Statement:

How does Inspection and Technical Services (ITS) determine the classification of a refrigeration plant, that is comprised of multiple connected, factory assembled refrigeration units (as defined above)?

Clarification for Determining Plant Classification:

When **one single unit** factory assembled plant is installed, ITS determines the plant classification by taking the total capacity sum of the primary refrigeration system.

When **multiple single unit** factory assembled plants are connected, whether in the primary or secondary (cooling) loops, ITS determines the plant classification by summing the total capacity sum of each primary refrigeration system. This is in accordance with the definition of a refrigeration plant, which includes "the complete installation of machinery and all appurtenances connected therewith."

Inspection and Technical Services determines the supervision requirements for all refrigeration plants, based on the following criteria:

1. The cooling capacity of each factory assembled units.
2. The intended use of the refrigeration system.
3. Classification of the refrigerant type.
4. Method of connection.

Exemptions from the Power Engineers Act or Regulation:

An owner or owner's designate may request exemption (See "Application Process" section) from the Power Engineers Act and Regulation when multiple single unit factory assembled plants are connected, whether in the primary or secondary (cooling) loops, if all of the following conditions are met:

1. Each of the factory assembled units do not exceed a cooling capacity of 100 Tons, and
2. Primarily used for human comfort applications (e.g. Heating, ventilation, air conditioning), and
3. Uses A1 OR A2L classified refrigerants (See ASHRAE 34 for refrigerant classification), and
4. The sub-systems are not connected with a common header on the refrigerant side, or other means that will guarantee that the failure of one of the units will not impact the other systems connected as part of the overall refrigeration plant.

(**Refer to the Examples section for further clarification**).

Advisory Note:

It is worth noting that this bulletin addresses the power engineering supervisory requirements ONLY (Power Engineers Act & Regulation) and does not include applicable

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requirements pertinent to the Steam & Pressure Plant Act & Regulation. Additionally, the entirety of the refrigeration system in question shall meet the requirements of CSA B52 and CSA B51 where applicable (Latest enforced editions), irrespective of the power engineering supervision requirements discussed in this bulletin.

Therefore, it is the responsibility of the pressure equipment owner or owner's designate to ensure full compliance with the applicable provincial rules and regulations.

Application Process:

The applicant shall submit the exemption request from the Power Engineers Act or Regulation and regulation by sending an email to bpvintake@gov.mb.ca. The subject heading of the email shall reflect the following "**Non-Application, 2(c)(ii) – Single Unit Factory Assembled Refrigeration Plants**".

Additionally, the email shall include as a minimum the following information:

1. The address of the plant where the installation is taking place.
2. The cooling capacity (e.g. Tons of cooling) for each of the factory assembled units.
3. The Intended use of the refrigeration system (e.g. Industrial, commercial, human comfort).
4. The refrigerant classification (e.g. A1, A2L, B1, etc.).
5. Indicate whether the factory assembled units (if more than 1) are connected via the primary or secondary refrigerant loop.

ITS will provide a response regarding the exemption request, within 10 to 15 business days.

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Examples

*Example	Number of Refrigeration Units	Cooling Capacity/Unit (Tons of Cooling)	Total Cooling Capacity	Units Connected (Y/N)?	Refrigerant Classification	Intended Use of Refrigeration System	Non-Application, 2(c)(ii) (Y/N)?	Applicable for Exemption (Y/N)?
1	1	100	100	n/a	Any	Any	Y	n/a
2	2	**105**	**210**	**YES**	**B1**	**Industrial**	N	N
3	3	90	270	NO	A2L	Human Comfort	N	Y
4	5	12	**60**	YES	B2L	Industrial	Y	n/a
5	10	**110**	1100	NO	A2L	Human Comfort	N	N
6	15	5	**75**	**YES**	**B3**	**Commerial**	N	N
7	20	20	400	NO	A1	Human Comfort	Y	n/a

*It is worth noting that, the provided examples may not be representative of actual refrigeration systems. The examples are merely used to convey the refrigeration system exemption criteria from the Power Engineers Act & Regulation.

Commentary:

- **Example 2:** The installation is not exempt from the Power Engineers Act & Regulation due to the following:
  - Each of the unit's capacity is 105 Tons of cooling versus the maximum allowable of 100 Tons of cooling.
  - The units are connected on the refrigerant side and not the secondary side.
  - The units contain a B1 classified refrigerant versus the allowable A1 OR A2L refrigerants.
  - The refrigerant system is used for industrial purposes versus the allowable human comfort application.
- **Example 4:** The installation is considered Non-Application as per 2(c)(ii) of the Power Engineers Regulation due to the following:
  - The 5 units are connected and therefore the total capacity of the plant is 60 Tons.
- **Example 5:** The installation is not exempt from the Power Engineers Act & Regulation due to the following:
  - Each of the unit's capacity is 110 Tons of cooling versus the maximum allowable of 100 Tons of cooling.
- **Example 6:** The installation is not exempt from the Power Engineers Act & Regulation due to the following:
  - The units are connected on the refrigerant side and not the secondary side.
  - The units contain a B3 classified refrigerant versus the allowable A1 OR A2L refrigerants.
  - The refrigerant system is used for commercial purposes versus the allowable human comfort application.
- **Example 7:** The installation is considered Non-Application as per 2(c)(ii) of the Power Engineers Regulation due to the following:
  - The units are not connected therefore each unit is considered it's own refrigeration plant.

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