

Technical and Corporate Services

Public Safety Division

Alberta Municipal Affairs

safety.services@gov.ab.ca

Phone 1.866.421.6929

Gas Systems





HOME PUBLIC SCO MASTER ELECTRICIANS ORGANIZATIONS COUNCIL ASCA COUNCIL CONNECT

National Building & Fire Codes - 2019 Alberta Editions - Available Now

The National Building Code – 2019 Alberta Edition and the National Fire Code – 2019 Alberta Edition are now available online and in downloadable form for free from the National Research Council.

Read More



2017 Barrier-Free Design Guide Now Available!

The Barrier-Free Council of the Safety Codes Council, in partnership with Alberta Municipal Affairs has developed the Barrier-Free Design Guide to provide further interpretation and understanding of accessibility requirements under section 3.8. of the Alberta Building Code.



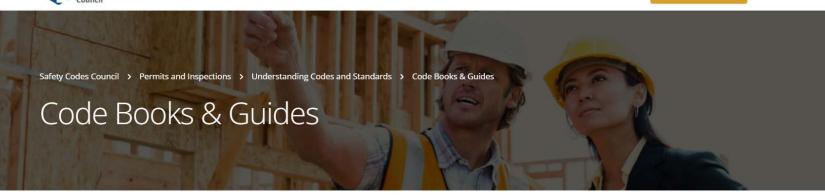
Now Available!

Private Sewage Systems 2015 Standard of Practice Handbook is available to order.

Read More



Read More



Code Books & Guides

The Safety Codes Council produces a number of handbooks and guides to help you interpret and apply the codes and standards recognized in the province of Alberta.



NEW - Alberta Electrical Utility Code, Sixth Edition 2022 - FREE DOWNLOAD

Comes into Force September 1, 2023

The Alberta Electrical Utility Code (AEUC) sets out minimum standards to be followed in regards to electrical work.

Fifth Edition 2016 of the AEUC will remain in-force until August 31, 2023 and will apply to permit applications received to August 31, 2023. After September 1, 2023, permit applications, subsequent system designs, and installations must reflect Sixth Edition 2022 of the AEUC.

(Print version also available for purchase through Alberta King's Printer.)



NEW - Alberta Private Sewage Systems - Standard of Practice, Fourth Edition 2021 - FREE DOWNLOAD

*updated December 2021

In Force as of November 1, 2022

The Private Sewage Systems Disposal Regulation adopts the Alberta Private Sewage Systems Standard of Practice (SOP) as amended or replaced from

Version 2015 of the SOP will remain in-force until October 31, 2022 and will apply to permit applications received to October 31, 2022. After November 1, 2022, permit applications, subsequent system designs, and installations must reflect Version 2021 of the SOP. Upon completion of their SOP Update Training, Certified Installers may use and reference Version 2021 of the SOP on permit applications prior to the November 1, 2022 in-force date.

The Council will establish code update training requirements for Group B Plumbing SCOs in the coming months.

(Print version also available for purchase through Alberta King's Printer.)

Codes in force

- CSA-B149.1:20, Natural gas and propane installation code Declared in force on February 1, 2021
- CSA-B149.2:20, Propane storage and handling code Declared in force on February 1, 2021
- CSA-B149.3:20, Code for the field approval of fuel-burning appliances and equipment – Declared in force on February 1, 2021
- CSA-B149.5:20, Installation code for propane fuel systems and containers on motor vehicles – Declared in force on February 1, 2021
- CSA- B108.1:21, Compressed natural gas refuelling stations installation code and CSA B108.2:21, Liquefied natural gas refuelling stations installation code, Declared in force on February 1, 2022
- CSA-B109.1:21, Compressed natural gas vehicles installation code and CSA B109.2:21, Liquefied natural gas vehicle installation code, Declared in force on September 1, 2022





- CETA / UKCA
- Gasfitters reconciliation agreement
- Portability of field approved equipment.
- Gas Range emissions
- Ventless heaters
- Inspection Body and Certification Body roles

























































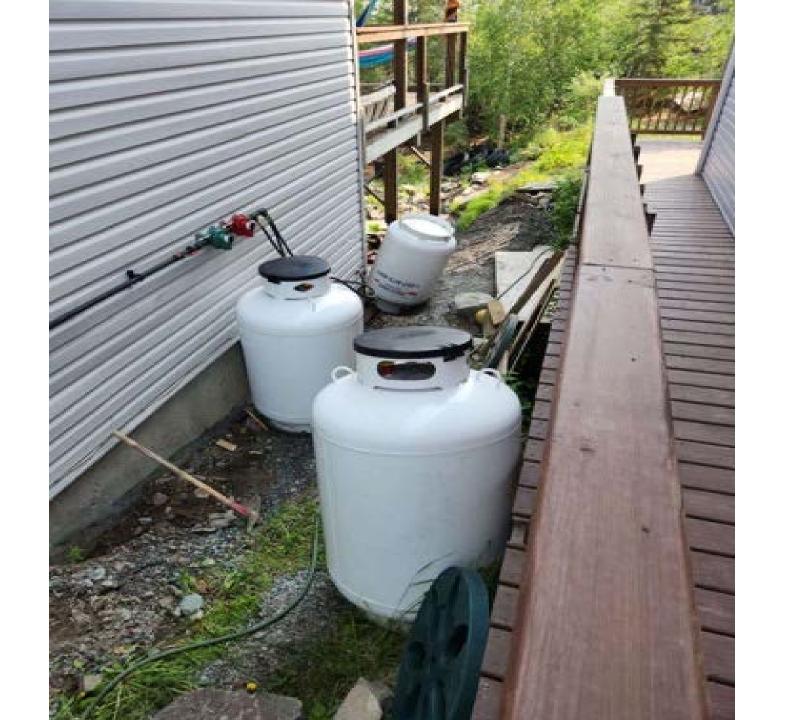


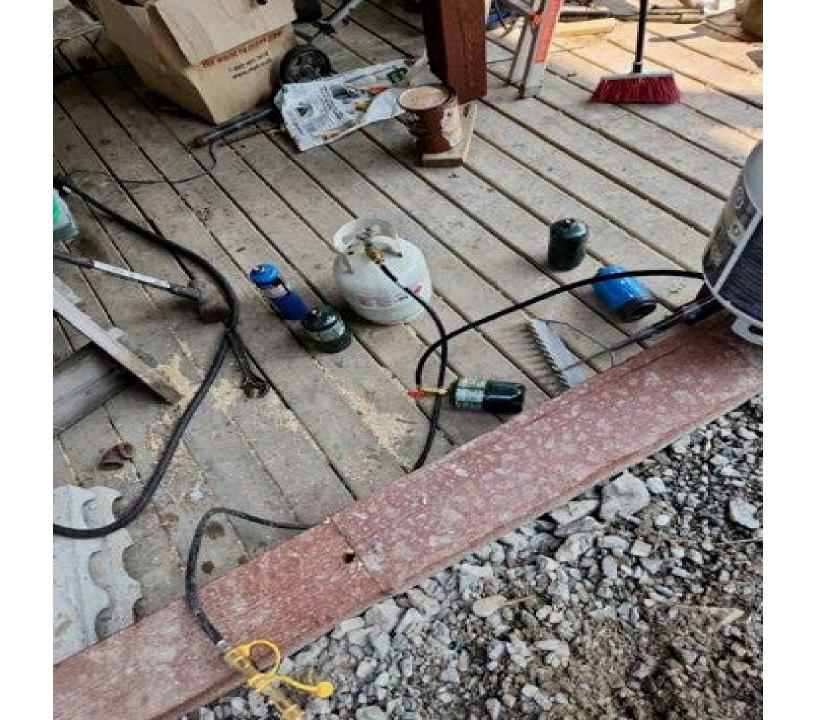












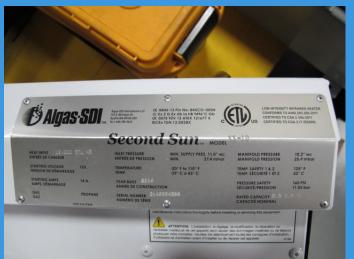
200 psi tanks



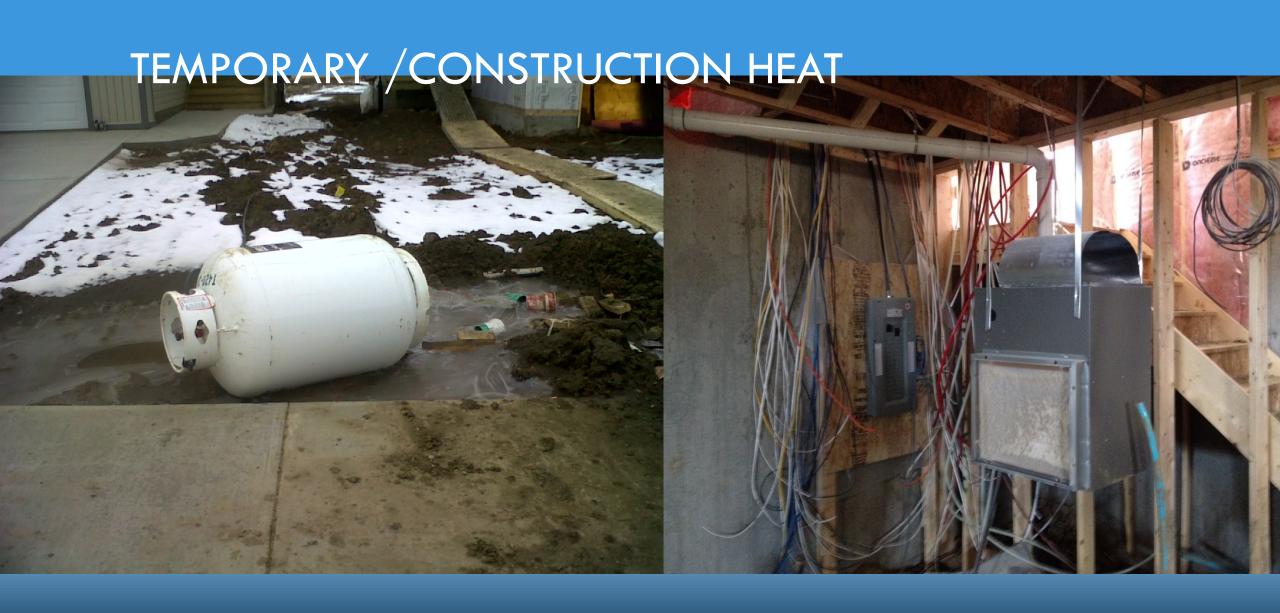




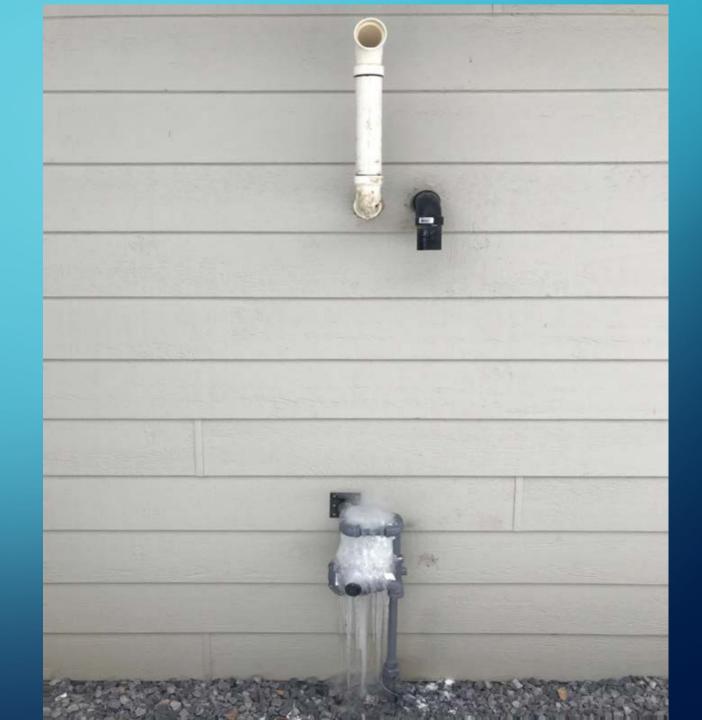










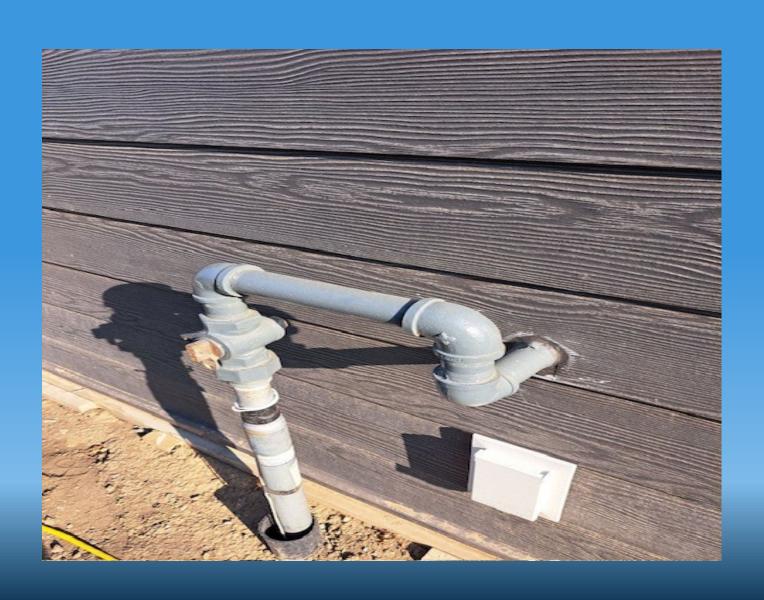




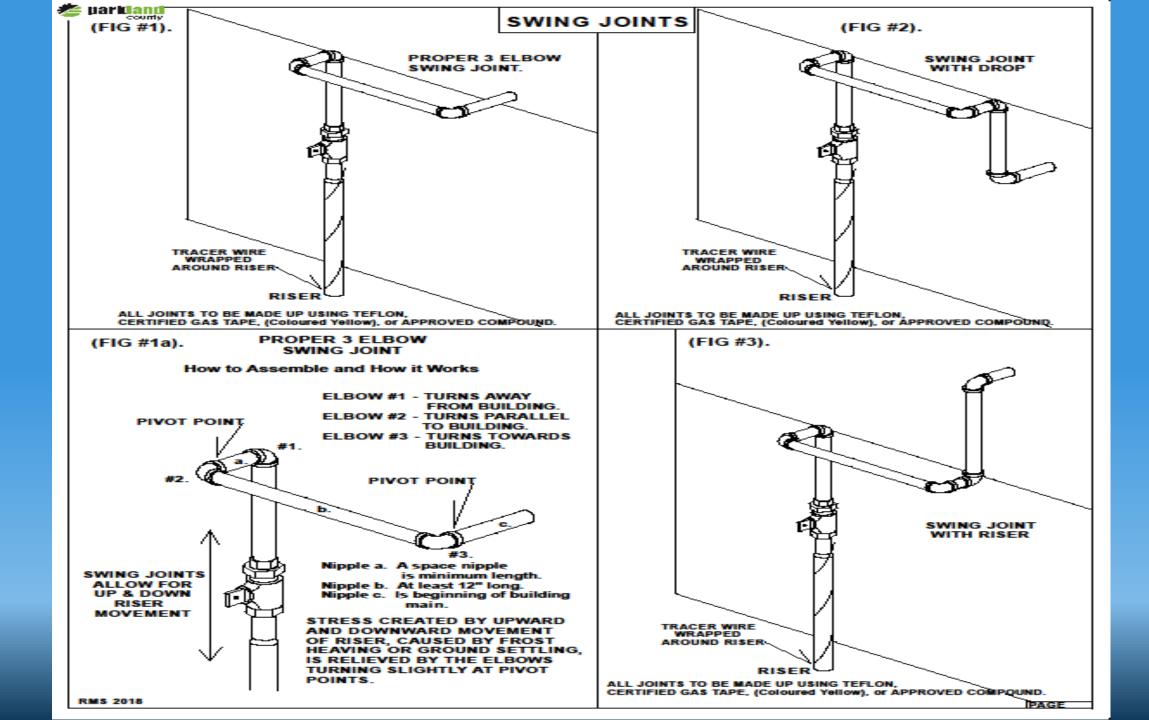


BURIED APPLICATIONS

SWING JOINTS, INSULATING UNIONS AND SIZING











Aug 1, 2014

RE: MegaPress Swing Joints

To Whom It May Concern:

An AHJ could consider
accepting a Swing Joint
accepting a Certain
that included certain
press-connected fittings

Some confusion has arisen when referencing section 3.7.1 of the "Viega MegaPress System Installation Manual". In this section, it is stated that a fitting must be re-pressed to restore resistance to rotational movement if it has been rotated more than five degrees. This statement was included to address the manual movement of the fitting by an installer rather than movement due to the shifting of equipment or settling of the ground. An additional press is recommended to restore the resistance to undesired movement of the fittings, and in no way increases the effectiveness of the sealing element.

MegaPress® fittings per their listing to ANSI LC 4/CSA 6.32 are compliant with CSA B149.1 (Natural Gas and Propane Installation Code) and NFPA 54 (National Fuel Gas Code). As swing joints are permitted within the code, and MegaPress® fittings are considered to be a permanent connection, they may be used to create such piping arrangements when necessary.

Thank you for choosing MegaPress®.

Regards,

Viega Technical Services 1-877-843-4262 X 350

VENT SIZING

- Minimum sizes
- 3 inch
- 4 inch
- combination three and 4 inch draft codes on hot water tanks

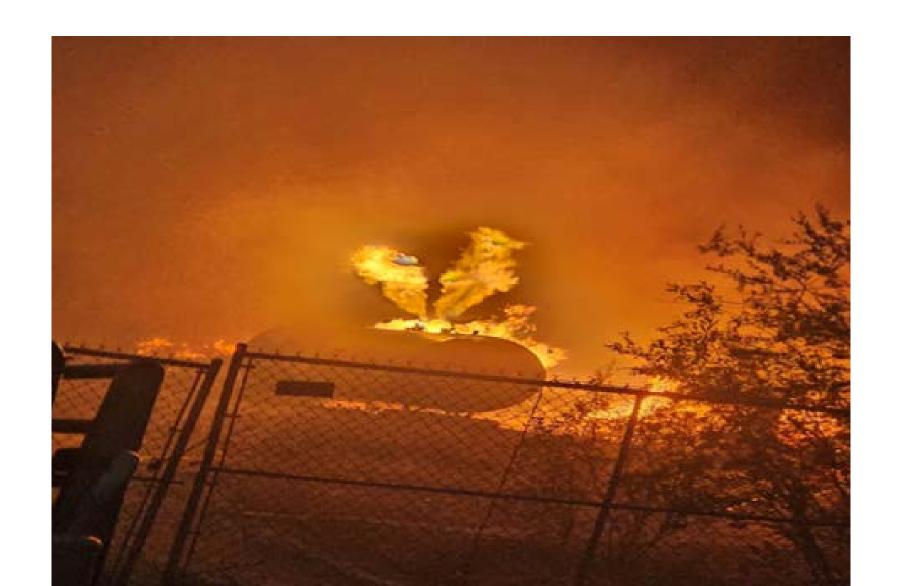


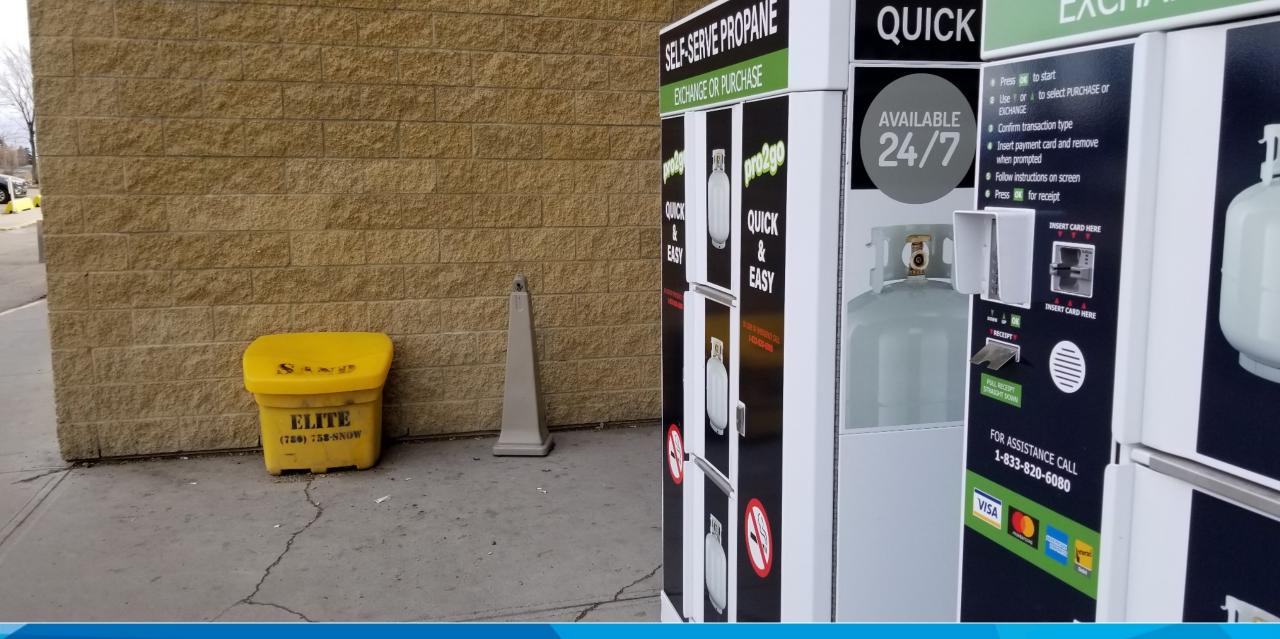






Wildfire victim or cause



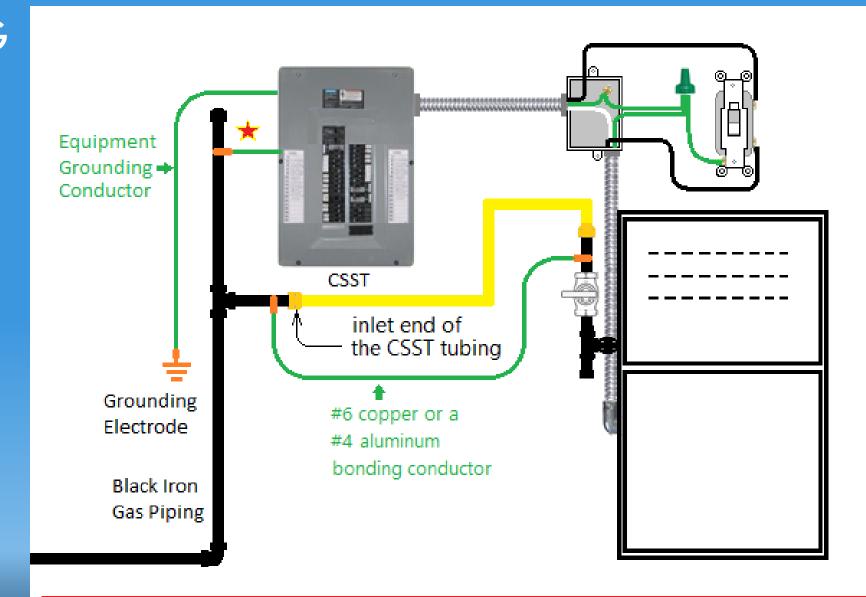




Classification: Public



BONDING

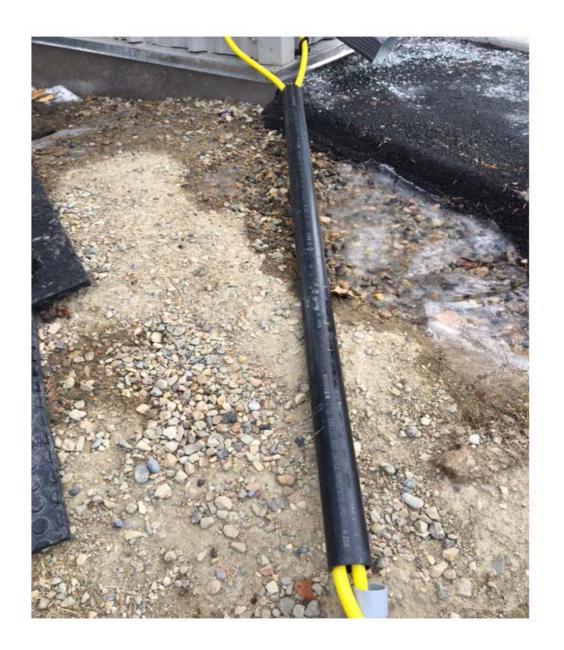


Note: CSST manufacturers may have additional bonding/lightning safeguard requirements.

RURAL GAS FAIL



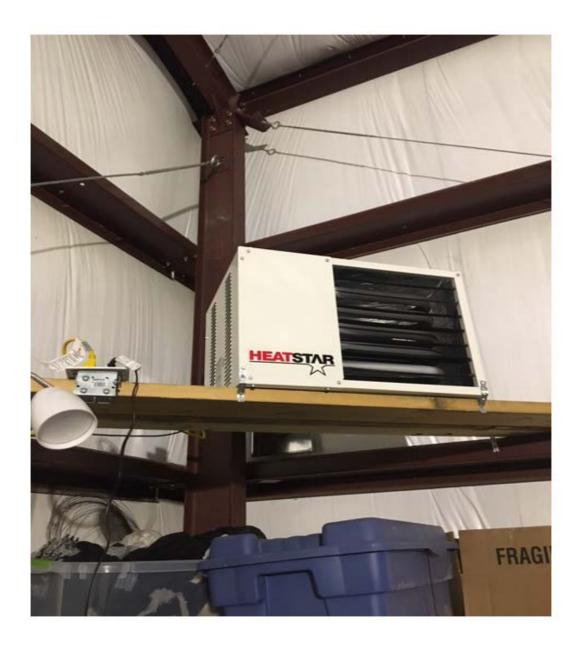


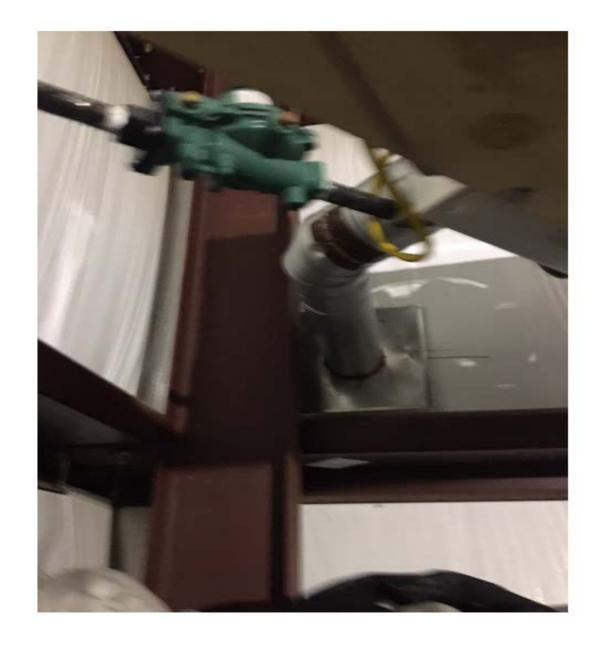


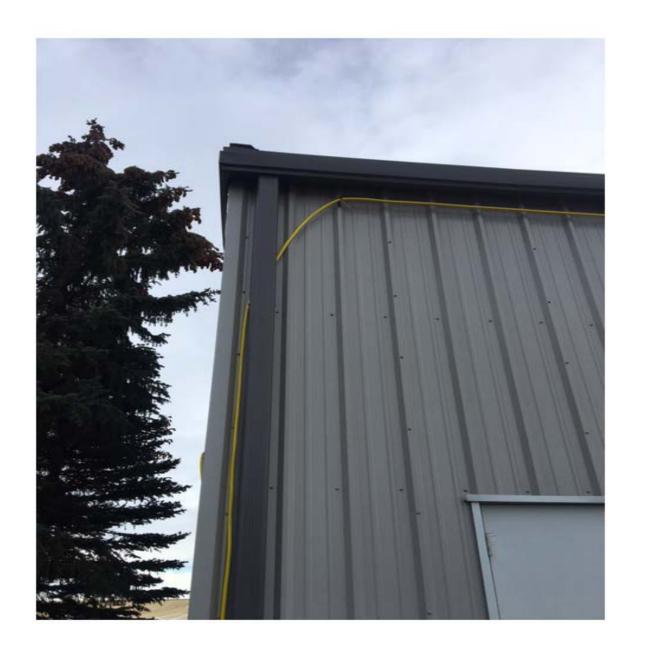










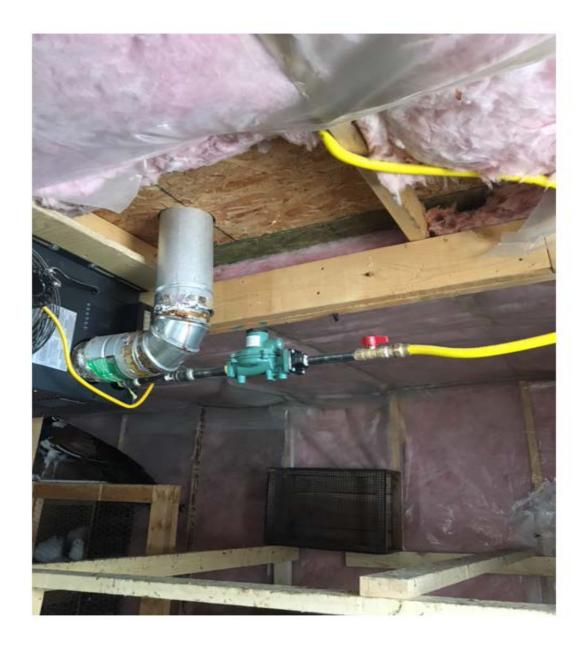












Engines

Standata - variance and information bulletin 20-GCB-01 - Engines and Turbines 20-GCV-01 - Stationary Gas Engines

ULC 2200 available for certification of engines.



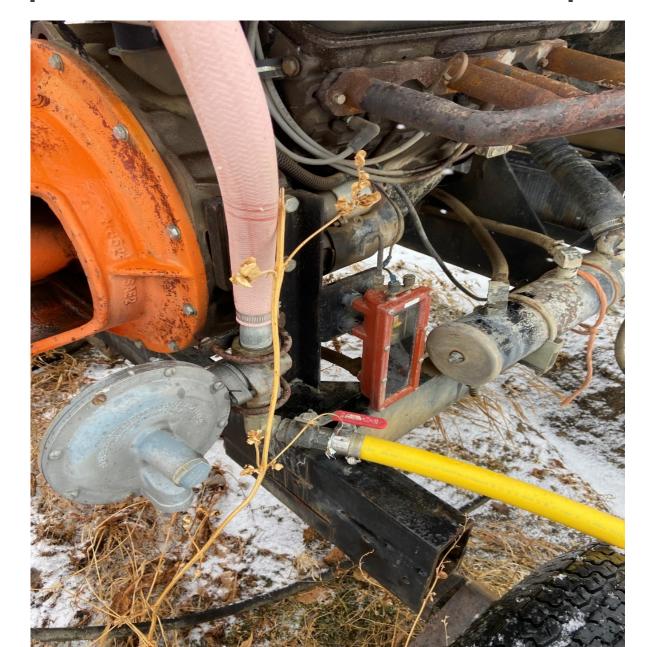
Albertan

Restricted certificates

A permit issuer may issue a permit in the gas discipline to a person who has satisfactorily completed a course of training acceptable to the Administrator for the installation of natural gas secondary lines;



Permit required for installation or replacement

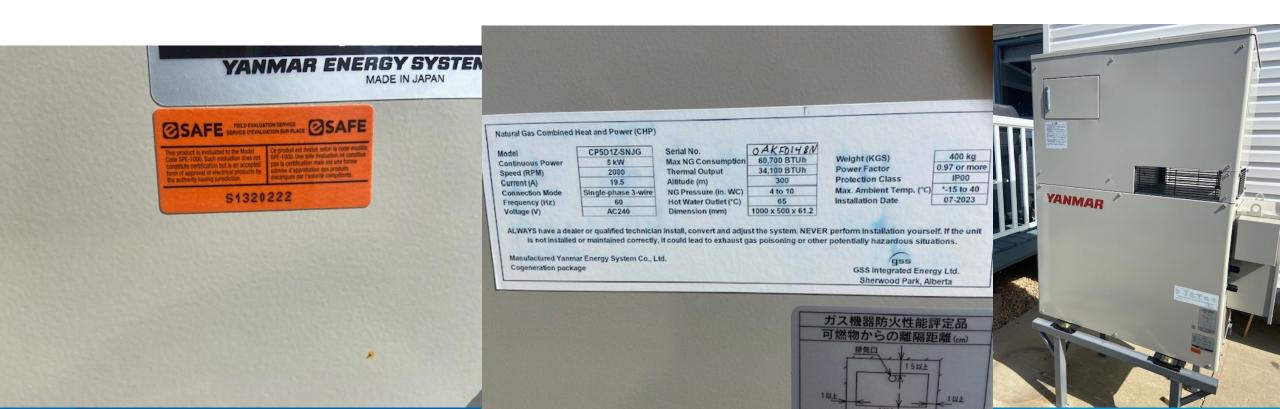






Yanmar

- Certification
- Field approval
- permits for new installations replacements and alterations/extensions/additions

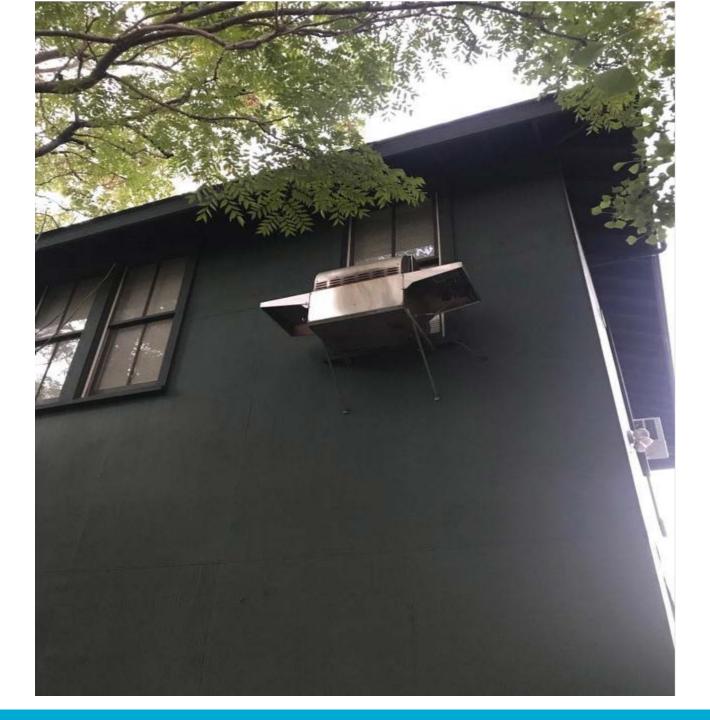




- PVC/ABS shortages
- PVC/ABS transition with or without restrictions
- PVC cell core site-specific variances
- PVC cell core province wide variance

WINTER IS COMING





GAS STOVES

- A recent study linking gas stoves to childhood asthma raises more concerns.
- US bans being considered to prevent the sale of gas stoves.
- Required ventilation (retroactive)
- https://www.bloomberg.com/news/articles/2023-01-09/us-safety-agency-to-consider-ban-on-gas-stoves-amid-health-fears?leadSource=uverify%20wall
- Minimum ventilation = 50 L/S (100 + cfm) what about 900-2000 CFM?

Non BTU installations

Fueling stations

LPG, CNG, LNG, Hydrogen, combinations.



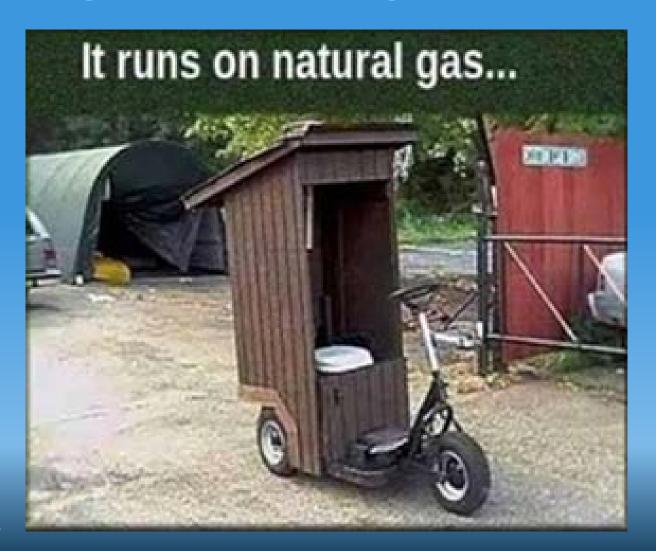
Food truck standata (Mobile/temporary cooking equipment)

B149.3 Annex J Mobile outdoor food service unit





DECARBONIZATION



HYDROGEN

- Natural gas is defined as including up to 5% H2.
- 10-20% Blends
- 20-95% Hydrogen
- 100% hydrogen
- Hydrogen carriers

Note;

DME profiles present similar challenges.

Hydrogen

- -Hydrogen business model
- -Pipeline safety and integrity
- -Potential impact on the regulatory environment
- -Potential impact on the competitive natural gas retail market
- -Rate issues and
- -Other considerations





Hydrogen blends

- 20% H2 added reduces the caloric value by ~7%
- Heating values drop upon initial introduction of hydrogen and tend to level off above 30% by volume
- Flame luminosity and visible length of a flame of hydrogen/propane mixtures decreases with the increase of hydrogen concentration
- H2 effects the burning velocity of the gas
- H2 can permeate through Silicone and PTFE and can have an impact on the fatigue performance of steel.
- Wide flammability range of hydrogen mixtures

Note;

DME profiles present similar challenges.

FIRE-STOPPING S636 VENTING





RADON GEOTHERMAL ELECTRIFICATION

- Reevaluate for the house as a system
- consider the drive towards decarbonization and consideration for climate effects
- Managing all applicable drivers for hydrogen and alternate sources of energy.

Questions?

