



# TSSA: Enhancing Public Safety In Ontario



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Ontario Petroleum Contractors Association AGM  
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# Agenda

- Corporate Update
- Revision of the LFHC
- Discussion

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# TSSA

- No major changes in scope, stakeholders, website, contact centre, Tech Desk, Corporate
- Province now divided into 5 Regions
- 345 Carlingview Drive, Toronto

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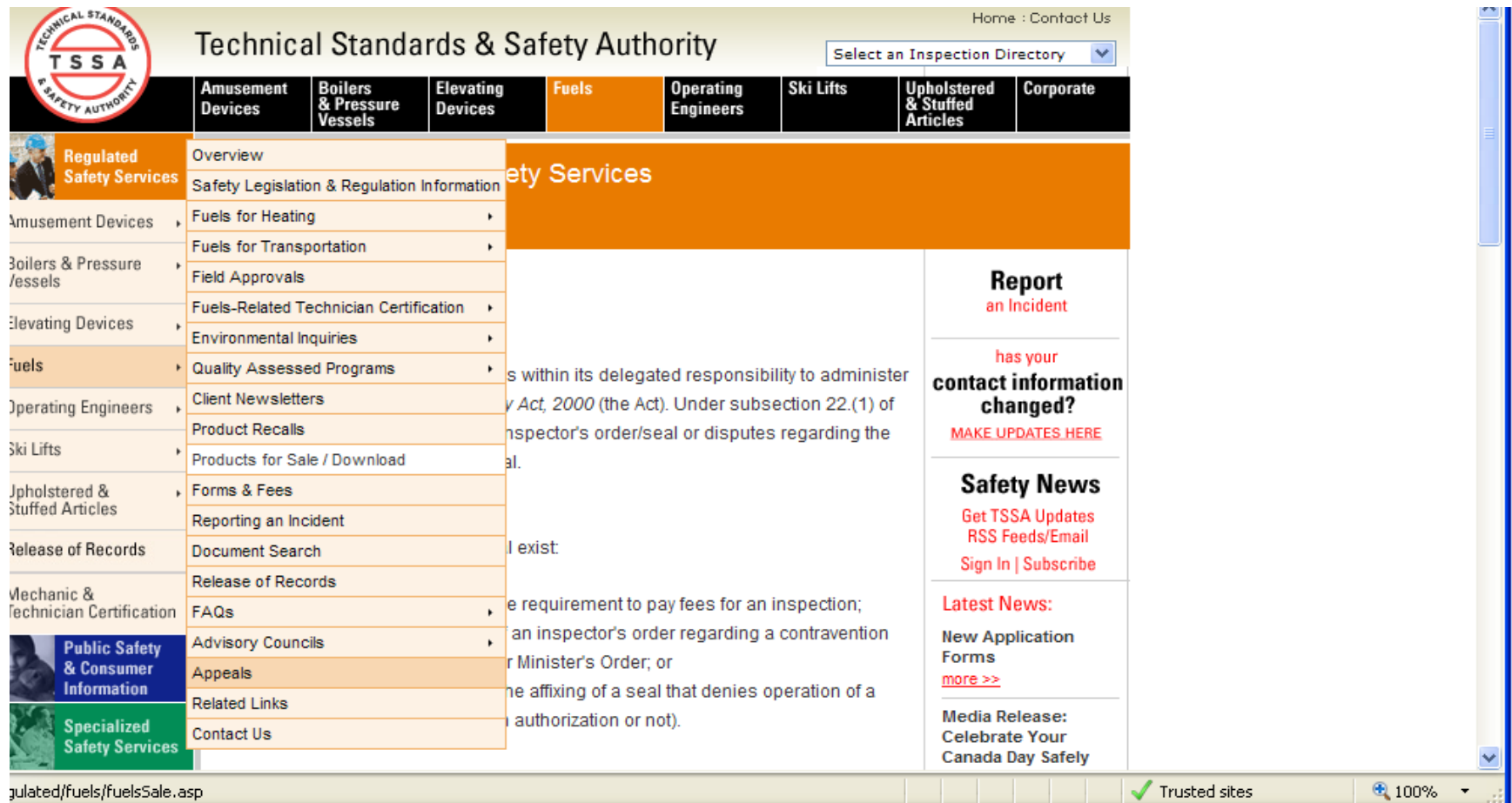


- More focus on:
  - Value added,
  - Open for business,
  - Red Tape Reduction
  - Rationales
  - Uniformity across Canada
  - Level playing field across all fuels

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# TSSA Website



The screenshot shows the TSSA website homepage. The header features the TSSA logo on the left, the title "Technical Standards & Safety Authority" in the center, and navigation links "Home" and "Contact Us" on the right. Below the header is a horizontal menu with categories: Amusement Devices, Boilers & Pressure Vessels, Elevating Devices, Fuels (highlighted in orange), Operating Engineers, Ski Lifts, Upholstered & Stuffed Articles, and Corporate. The main content area is divided into two columns. The left column lists various services and information, including "Regulated Safety Services", "Overview", "Safety Legislation & Regulation Information", "Fuels for Heating", "Fuels for Transportation", "Field Approvals", "Fuels-Related Technician Certification", "Environmental Inquiries", "Quality Assessed Programs", "Client Newsletters", "Product Recalls", "Products for Sale / Download", "Forms & Fees", "Reporting an Incident", "Document Search", "Release of Records", "FAQs", "Advisory Councils", "Appeals", "Related Links", and "Contact Us". The right column contains a large orange banner for "Safety Services", a section for "Report an Incident" with a link to "MAKE UPDATES HERE", a "Safety News" section with links for "Get TSSA Updates", "RSS Feeds/Email", and "Sign In | Subscribe", and a "Latest News" section with links for "New Application Forms" and "more >>". The footer of the website shows the URL "regulated/fuels/fuelsSale.asp", a "Trusted sites" icon, and a "100%" zoom level.

Technical Standards & Safety Authority

Home : Contact Us

Select an Inspection Directory

Amusement Devices Boilers & Pressure Vessels Elevating Devices Fuels Operating Engineers Ski Lifts Upholstered & Stuffed Articles Corporate

Regulated Safety Services

Overview

Safety Legislation & Regulation Information

Amusement Devices

Boilers & Pressure Vessels

Elevating Devices

Fuels

Operating Engineers

Ski Lifts

Upholstered & Stuffed Articles

Release of Records

Mechanic & Technician Certification

Public Safety & Consumer Information

Specialized Safety Services

Safety Services

Report an Incident

has your contact information changed?

MAKE UPDATES HERE

Safety News

Get TSSA Updates

RSS Feeds/Email

Sign In | Subscribe

Latest News:

New Application Forms

more >>

Media Release: Celebrate Your Canada Day Safely

regulated/fuels/fuelsSale.asp

Trusted sites

100%

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# TSSA Fuels Safety Program

## Queries?

- Contact TSSA's Customer Contact Centre toll-free **1-877-682-TSSA (8772)**
- Visit [www.tssa.org](http://www.tssa.org)



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# Fuels Safety Program Organization

- Inspection
  - 5 regions
    - Eastern - Mike Goldberg
    - Northern – Guy Castagne
    - Golden Horseshoe – Sat Viridi
    - Central – Mark Schubert
    - Western – Mike Davis

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# Fuels Safety Program Organization

## ● Engineering

- Gasoline – Ann-Marie Barker
- Environmental – Stephen Hoyle
- Fuel Oil – Raphael Sumabat
- Commercial Buildings Inspections Program – Nina Nasiri
- Natural Gas – Marek Kulik
- Propane – Solomon Ko
- Field approvals – Fedja Drndarevic
- Pipelines – Oscar Alonso, Kourosh Manouchehri
- Digester and Landfill – Marvin Evans
- Variances – Richard Huggins
- Vehicle Fuels – Brigit Gillis
- Mobile Food Carts – Ted Clark

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# Partnership

- Fees may continue to be frozen
- Public consultations on all CADs and changes
- Industry meetings, workshops
- TSSA Website and EBR postings of CAD revisions and proposals
- Rationales and impacts

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# Code Adoption Schedule

- Adoption of 2015 B149, B139, Z662
  - Expected publication date – Mid 2015 - missed
  - January 1, 2016 effective date by TSSA - missed
    - Fuel oil – by the end of the month
    - Pipelines – almost there
    - Propane – labelling of propane fuelled vehicles and RVs
    - Natural Gas – interlocking requirements for livestock heaters
      - TSSA Filed approval Code ready
      - TSSA Digester, Bio and Landfill Code ready

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# Incidents

- Carbon monoxide incidents in private dwellings continue to be the leading cause of incidents in Fuels.
- Public education initiatives will continue
- Improve the effect of existing safety net
  - Review of existing inspection efforts
  - Contractor and certificate holder audits
  - TSSA inspections of special buildings

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# Liquid Fuels – State of Compliance

- Liquid fuels and propane compliance assessed through periodic inspections
- Natural gas compliance assessed through contractor audits

Compliance Rate	Trends at the End of Fiscal Year 2012/2013	Trends at the End of Fiscal Year 2013/2014	Results at the End of Fiscal Year 2013/2014 [prediction interval]
Liquid Fuels	↓0.61%/quarter	↓0.70%/quarter	33% [15% to 58%]
Propane	↑1.16%/quarter	↑1.34%/quarter	69% [43% to 84%]
Natural Gas	↓0.51%/quarter	↓0.27%/quarter	56% [52% to 68%]

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# Compliance Rate by Fuel Type FY11 Q4 – FY16 Q3

- Liquid fuels and propane compliance assessed through periodic inspections
- Natural gas compliance assessed through contractor audits

Compliance Rate	Trends at the End of FY15	Trends at the End of the Third Quarter of FY15	Results at the End of the Third Quarter of FY16 [prediction interval]
Liquid Fuels	No Trend	↑0.62%/quarter	33% [14% to 46%]
Propane	↑1.01%/quarter	↑0.86%/quarter	72% [41% to 89%]
Natural Gas	No Trend	↑ 0.38%/quarter	54% [48% to 62%]

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# Challenges

- More efficient and innovative way of providing service
- Improve data integrity to foster Risk Based Decision Making (RIDM)
- Need and business will drive innovation but will the Regulations and CADs keep up in time?
- Technology reduces costs but should we review our requirements?
  - Remote monitoring
  - Wireless interface

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## Get involved and Make a Difference

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# Liquid Fuels Presentation to OPCA

Ann-Marie Barker  
March 9, 2016



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## Proposed Changes to the LFHC



# Proposed Changes to the LFHC

- One year of consultation on the proposed LFHC
  - Posted on EBR Registry Sept 2014 to Sept 2015
  - 2 public consultations in Sudbury & Sault Ste Marie
  - 2 Webinars
  - Approximately 85 participants in the in-person consultations and the webinars.
  - Participants included representatives from the Ontario Government (e.g. MGCS, MOECC), municipalities, conservation authorities, industry groups (OFA, NOTO), contractors and some owner-operators

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# Proposed Changes to the LFHC

- Currently finalizing the proposed LFHC
- Will be sent to CSA for editing and publishing
- Hope to publish and come into effect in 2016

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# Proposed Changes to the LFHC

- Where an underground single wall steel storage tank leaks, the owner or operator shall immediately remove the product and take the leaking tank out of service. Within 12 months of the discovery of the leak, the owner or operator shall remove from the facility all underground single wall steel storage tank systems
  - Youngest single-wall steel tank is 20+ years
  - Installations of single wall steel USTs have not been permitted since 1993.
  - They will eventually leak due to corrosion
  - 12 months to allow time for remediation, budgeting, etc.
  - 1993 GHC had similar requirement for all pre-1974 tanks that were not protected from corrosion & were upgraded by fibreglass lining or impressed current. Had 180 days to remove tank nest.

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# Proposed Changes to the LFHC

- Where a single wall steel underground tank is out of service for one year or more, the owner of the tank system or the owner of the property on which the tank is located shall remove the tank and piping from the ground.
  - Youngest single-wall steel tank is 20+ years old
  - They will eventually leak due to corrosion
  - if out of use, single-wall steel tanks are removed **after 1 year instead of 2**
  - TSSA no longer grants variances for single-wall USTs

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# Proposed Changes to the LFHC

- Where a single-wall underground product piping system fails the Cathodic Protection test, the owner or operator shall conduct a leak test on the piping within 30 days and within 12 months of the Cathodic Protection test failure, the owner or operator shall remove from the facility all underground single wall steel piping systems.
  - Single wall steel pipe (galvanized & black steel) is a known source of leaks.
  - New installations of single wall steel pipe have not been permitted since 1993.
  - Cathodic Protection of piping is not completely effective as buried joints are very difficult to protect and it does not mitigate internal corrosion.
  - Galvanized pipe may have been unprotected for a significant amount of time prior to the initial requirement to upgrade with anodes in 2005.
  - 12 months to allow time for remediation, budgeting, etc

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# Proposed Changes to the LFHC

- All tanks & tank compartments must be individually vented
  - Existing sites grandfathered
  - Tank product configurations are always changing. May not know that they are manifolded.
  - Some sites are not upsizing the common manifold.
  - For new sites, it's better to vent each tank and compartment individually. This is less expensive than upsizing the common vent.
- For tanks and tank compartments that require vapour recovery systems in accordance with O. Reg. 455/94, the vapour recovery piping shall not be manifolded.
  - To prevent cross contamination

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# Proposed Changes to the LFHC

- (a) Double-wall underground pressure piping systems that were installed prior to January 1, 2006 and were approved to one of the following standards

ORD-C107.4-1992, Ducted Flexible Underground Piping System for Flammable and Combustible Liquids

ORD-C107.7-1993, Glass-Fibre Reinforced Plastic Pipe and Fittings for Flammable and Combustible Liquids

ORD-C107.19-1992, Secondary Containment of Underground Piping for Flammable and Combustible Liquids

shall be upgraded with Electronic Line Leak Detection (ELLD) by December 31, 2019.

- (b) If the certification for the pipe is undetermined, the piping shall be upgraded in accordance with (a).
- (c) The ELLD shall be programmed to shut down the turbine pump when a leak is detected.

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# Proposed Changes to the LFHC

- All submersible pumps, installed below grade, shall be contained in a monitored sump by December 31, 2021.
  - The old culverts don't provide containment
  - Will require re-piping



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# Proposed Changes to the LFHC

- New section on Private Card/keylocks ***that have an annual throughput of half a million litres, or greater***, (e.g. Municipalities; trucking companies)
- Same requirements as for a retail card/keylock except for oil/water separator and under dispenser fire suppression
  - Exemption for separator & fire suppression since these sites are usually attended
  - Existing sites grandfathered
  - Exempts small PFOs that have a card/keylock system



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# Proposed Changes to the LFHC

- Mobile Fuelling – clarifying section and allow for future work on mobile fuelling of watercraft
- Will set up a task group to develop criteria for watercraft
- This will be independent of the Code revision so as not to further delay publication of the LFHC

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# Proposed Changes to the LFHC

- Where tanks, piping or dispensers of an UST system is being removed, relocated or replaced ... shall submit an assessment report to TSSA that delineates the full extent of any petroleum product that has escaped from the area(s) where the tanks, piping or dispensers were located ...
  - If tank is removed – EA from tank nest;
  - If dispensers being relocated – EA from island and old pipe location
- where piping is being replaced and where there is no excavation and no evidence of contamination, then no environmental assessment is required.
  - E.g. piping was installed in a pipe chase
- Similar for AST systems

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# Proposed Changes to the LFHC

- Update standards and include new standards
  - New ULC S667-11, Metallic Underground Piping
  - ULC S643 has been incorporated into the new S601.
- Editorial changes to clarify the intent of the clauses

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