



# Research Options and Participation

Steve Pollock

TU-G4

March 25, 2025



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025

# What Standards should your office collect?

- UL 142 and 142A
- UL 2085
- PEI RP200
- Manufacturer's Standards (that are not proprietary)
- Installation Instructions (e.g. STI/SPFA R912 for AST Installation and Testing)
- The API suite of 653 and 570

# STI/SPFA and Standards

- Remember what Standards are, generally?
- Can be voluntary or mandatory
- Many types – design, performance to management and operational
- Established by consensus that provides rules, guidelines or characteristics for products, services and systems. (UL)

# STI/SPFA and UL MH Files

- Remember the cookbooks?



---

**UL 142**

**STANDARD FOR SAFETY**

Steel Aboveground Tanks for  
Flammable and Combustible Liquids

UL 2085

ISBN 0-7629-0238-8

Protected Aboveground Tanks  
for Flammable and  
Combustible Liquids

# Access to UL Standards

- Free but requires patience [shopulstandards.com](https://shop.ulstandards.com)

## How to Access Standards Content

Standards can be viewed online for free via the Digital View feature on our [UL Standards & Publications Site](#). Simply create a free account to get started. ISO and IEC adoptions are not available for digital view due to their copyright.

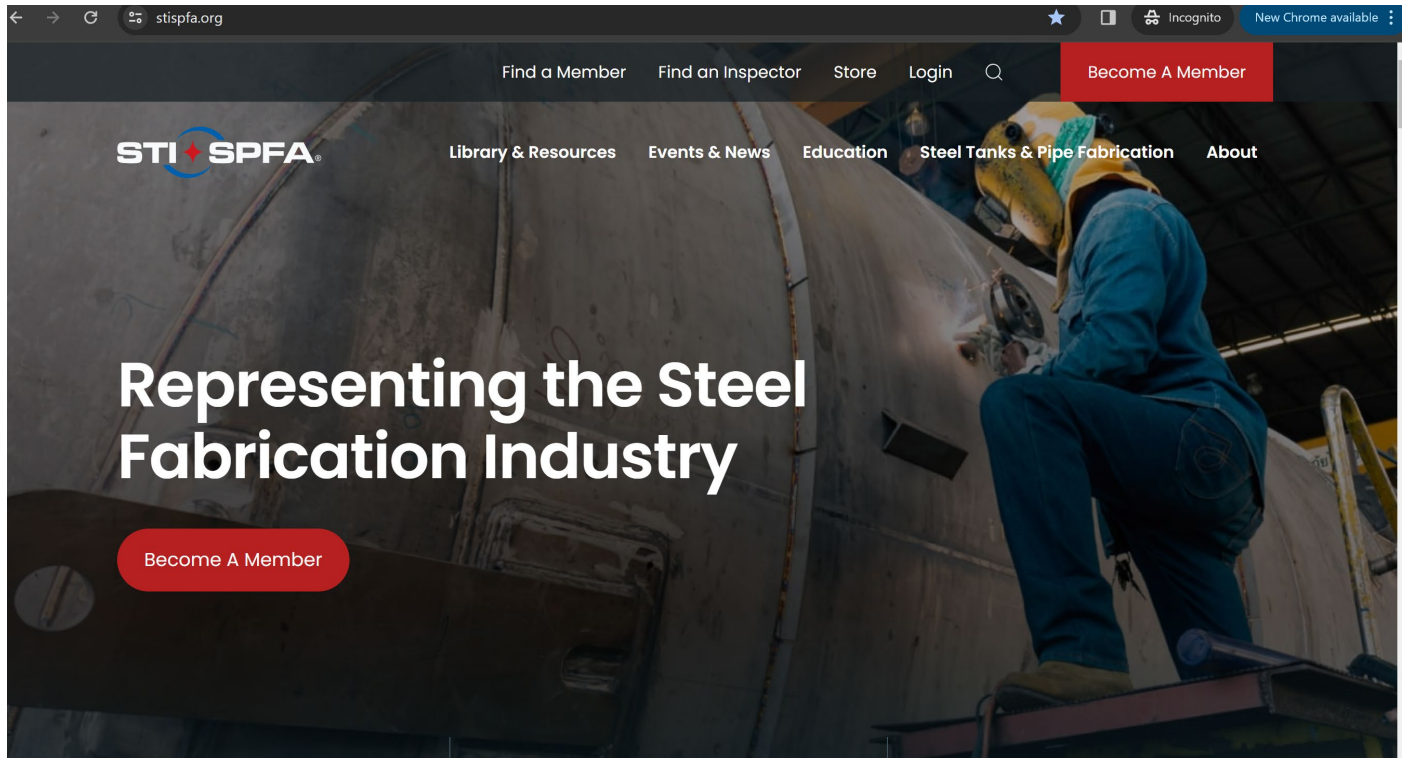
Members of our Technical Committees get access to the standards associated with their committees via the Committee Library in our Collaborative Standards Development System (CSDS).

Educational YouTube tutorials on accessing UL Standards documents that may be helpful for participants: [Accessing UL Standards Documents: Free Digital View](#)

[Accessing UL Standards Documents: CSDS Committee Library](#)



# STI/SPFA Standards



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025

# STI/SPFA Standards

- General Manufacturing Standards are available in the Store. Only Licensees have access to proprietary manufacturing details



## Store

Please note: You must login or create an account before purchase for immediate access to PDFs

Search



Specification for FIREGUARD® Protected Aboveground Storage Tanks (F941)

*The Specification for FIREGUARD® Protected Aboveground Storage Tanks (F941) covers a method of...*

Member Price: \$50  
Non-Member Price: \$60



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025



# STI/SPFA and UL MH Files

- Remember Performance Testing

## UL 142 PERFORMANCE TEST METHODS

### 42 Tank Leakage Test

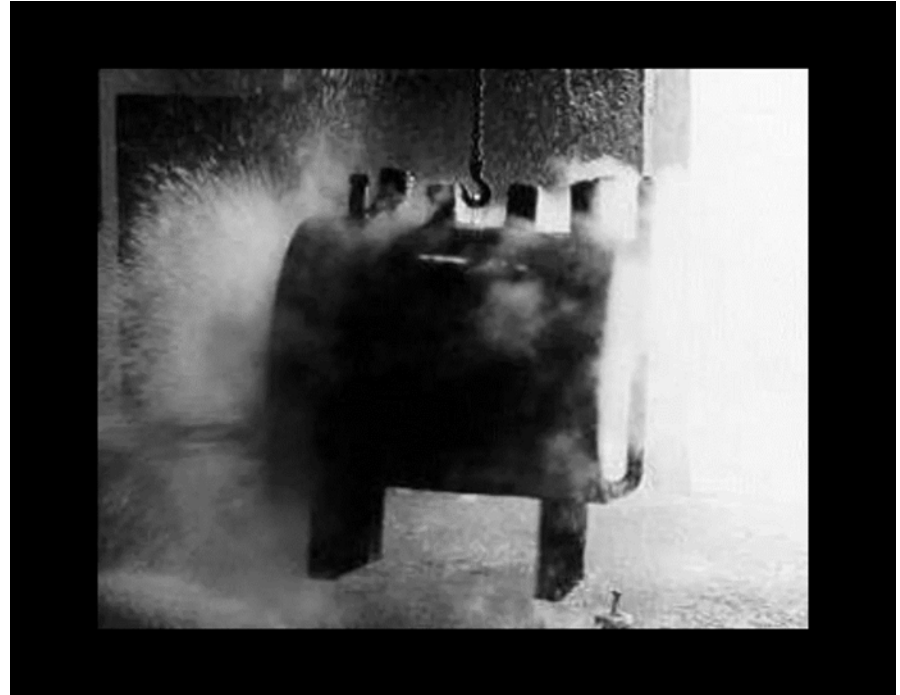
#### 42.1 Caution

42.1.1 Caution – Testing with air pressure presents a risk of injury to persons and personnel should be instructed in precautions to be taken during such testing. The precautions should include the use of a pressure-relief device that will reduce the risk of the tank becoming pressurized in excess of the specified test pressure.



# STI/SPFA and UL MH Files

- Remember Performance Testing
  - Design Performance Testing
    - One and done (sort of)
    - A novel design is put through the wringers



# STI/SPFA and UL MH Files

- Remember Performance Testing
  - Design Performance Testing
    - One and done (sort of)
    - A novel design is put through the wringers



# STI/SPFA and UL MH Files

- Remember Performance Testing
  - Design Performance Testing
    - One and done (sort of)
    - A novel design is put through the wringers



# STI/SPFA and UL MH Files

- Fabricators can test tank designs (and supports, lift lugs, etc) that allow for alterations to the “cookbook” tables.
- In some instances, fabricators can also use engineering analysis for UL to review and approve.
- For a marketing advantage, designs are often tested to worst case scenario to ensure a safe product as well as safe shop operations.
- Along with being listed to build to the cookbook, manufacturers are also bound to fabrication in accordance with their MH FILE.
- This file is confidential and cannot be shared.
- The file also contains unique inspection criteria - FUS

# STI/SPFA and UL MH Files

- Remember Manufacturing Testing?

- Manufacturing and Production Testing

- Every tank going out of a shop
- More from Matt tomorrow

## UL 142 **MANUFACTURING AND PRODUCTION TESTS**

### 49 Primary and Secondary Containment Tanks

49.1 Each primary and secondary containment tank, before painting, shall be tested by the manufacturer and determined to be tight against leakage using the method of the Tank Leakage Test, described in 42.1, 42.2, and 42.3.

49.2 If leaks are noted during testing, the tank is to be made tight by welding and retested. Defects in welds are to be repaired by chipping or melting out from one or both sides of the joint, as required, and rewelding

# STI/SPFA and UL MH Files

- Remember Manufacturing Testing?
  - Manufacturing and Production Testing
    - Every tank going out of a shop
    - Quarterly Inspections by listing organization
    - Quarterly inspections by STI/SPFA QC inspectors



# STI/SPFA and UL MH Files



# STI/SPFA and UL MH Files





# STI/SPFA and UL MH Files

How are project results used by fabricators?  
Company specific UL Files

File MH20579  
Project 01NK09101  
October 9, 2001

REPORT  
ON  
SPECIAL PURPOSE TANKS

Steel Tank Institute  
Lake Zurich, IL

Copyright © 2001 Underwriters Laboratories Inc.  
Underwriters Laboratories Inc. authorizes the above named company to reproduce this Report provided it is reproduced in its entirety.

File MH17150 Vol. ST1 Sec. Gen. Page 1 Issued: 2000-02-23  
Vol. ST2 Revised: 2011-07-24  
Vol. ST3

SECTION GENERAL - GENERAL PURPOSE ABOVEGROUND STEEL TANKS  
For Separate UL, cUL or ULC, and/or Combined cULus Dual Certification

PRODUCTS COVERED:  
This General Section covers the basic material and common construction requirements for separate UL, cUL or ULC, and/or combined cULus Dual Certification of Aboveground Steel Tanks for General Use and Storage of Flammable and Combustible Liquids covered under the referenced Standard follows:

TABLE 1 - TANK TYPES and CERTIFICATION MARKS

General Purpose Tank	UL Marks for EEEV Aboveground Tank for Flammable Liquids (#)	cUL or ULC Marks for EEEV (Primary or Single Wall) Aboveground Tank for Flammable Liquids (#)	cULus Dual Certification for Both Aboveground Tank for Flammable Liquids (#)
Primary (Single Wall) Tank	Enhanced Mark or Aboveground Tank for Flammable Liquids (#)	(Primary or Single Wall) Aboveground Tank for Flammable Liquids (#)	Both Tank Types Primary/Single Wall Aboveground Tank for Flammable Liquids (#)
Secondary or (Integrally Contained) Tank	Enhanced Mark or Secondary Containment Aboveground Tank for Flammable Liquids (#)	(Secondary or Integrally Contained) Aboveground Tank for Flammable Liquids (#)	Both Tank Types Secondary/Integrally Contained Aboveground Tank for Flammable Liquids (#)
Secondary or (Double Wall) Tank	Enhanced Mark or Secondary Containment Aboveground Tank for Flammable Liquids (#)	Double Wall Aboveground Tank for Flammable Liquids (#)	Both Tank Types Secondary/Double Wall Aboveground Tank for Flammable Liquids (#)
Diked Tank (Open Top or Closed Top) Diked Aboveground Tank for Flammable Liquids (#)	Enhanced Mark or (Open Top or Closed Top) Diked Aboveground Tank for Flammable Liquids (#)	(Contained Tank Assembly or Closed Top Diked) Aboveground Tank for Flammable Liquids (#)	Both Tank Types Closed Top Dike/Contained Assembly Aboveground Tank for Flammable Liquids (#)
Accessory Option Included in Mark	(#) - with or without "On Supports" as applicable	(#) - with or without "On Supports" as applicable	(#) - with or without "On Supports" as applicable

(1) Dual Cert restricted to only Closed Top Diked Tank/CTA designs

MANUFACTURER, LOCATIONS AND IDENTIFICATION:  
All tanks covered by this Procedure may be manufactured at any factory identified in the Authorization Page or its Addendum. A unique manufacturer ID Code required for Listees with multiple manufacturing locations shall be as specified on the Authorization Page Addendum, and shall be marked in

File MH17883 Vol. ST1 Sec. Gen. Page 1 Issued: 2000-02-15  
Revised: 2011-10-07

GENERAL  
NOTE: Changes to volumes of files that pertain to STI designs cannot be made without authorization from STI.

PRODUCT COVERED:  
Tank accessories and special constructions.

CONSTRUCTION DETAILS:  
All construction details are shown in the following illustrations and referenced in Sec. 1.

EXTERNAL LADDER:  
External ladder shall be constructed as detailed in ILL. 4B. **Steel ladders may be painted, galvanized, or equivalent.**

Stairways:  
Steel stairway, mounted to platform, 250 Max. live load, shown in ILLS. 6 and 7.

Platforms:  
Steel angle or channel platforms as shown in ILLS. 8 and 9. Pad mounted free standing pump platforms as shown in ILLS. 10, 11 and 12.

Shelves:  
Tank mounted

of 66



# STI/SPFA and UL MH Files

Capacity	Diameter	UL Thickness	MH FAB X Company Tested (not actual numbers)
1000 gal	64 inch	0.123	0.111
8000 gal	76 inch	0.167	0.155
20000 gal	144 inch	0.240	0.222

# UL Research Options: Product IQ

productiq.ulprospector.com/en

UL Product iQ®

ENGLISH

## Trusted Data. Modern Design.

UL Product iQ marries the longstanding UL certification information relied upon by millions of users with the intuitive design and user-friendliness of a modern search engine.

[Log In](#) [Join Product iQ](#)

[Search abridged site without login](#)

*Learn more about Product iQ—UL Solutions' source for certification information*



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025

# UL Research Options: Product IQ

UL Product iQ®

SEARCH MY SEARCHES MY TAGS STEVE



## REFINE RESULTS

Build or filter your results by keyword and/or adding criteria like document type, file number and country name.

**Keyword** ?  
Mosier Bros  Search

**UL Category Control Number** ?  
 Click to view and filter values

**Company Name**  
 Click to view and filter values

**File Number** ?  
 Click to view and filter values

**Location**  
 Click to view and filter values

**+ Add Filter**

[Cancel](#) [Reset](#) [Save Search](#)

[Dashboard](#) / Search

▶ 10 Results :: Keyword: Mosier Bros

Action

Document Name	Company Name	Notes	UL CCN Description
<a href="#">EEEV.MH6392</a>	MOSIER BROS	Historical	Aboveground Flammable-liquid Tanks
<a href="#">EEEV.MH6392</a>	MOSIER BROS		Aboveground Flammable-liquid Tanks
<a href="#">EEEV7.MH6392</a>	MOSIER BROS	Historical	Aboveground Flammable-liquid Tanks Certified for Canada
<a href="#">EEEV7.MH6392</a>	MOSIER BROS		Aboveground Flammable-liquid Tanks Certified for Canada
<a href="#">EELU.MH18259</a>	MOSIER BROS	Historical	Protected Aboveground Tanks for Flammable and Combustible Liquids
<a href="#">EELU.MH18259</a>	MOSIER BROS		Protected Aboveground Tanks for Flammable and Combustible Liquids
<a href="#">EELU7.MH18259</a>	MOSIER BROS	Historical	Protected Aboveground Tanks for Flammable and Combustible Liquids Certified for Canada
<a href="#">EELU7.MH18259</a>	MOSIER BROS		Protected Aboveground Tanks for Flammable and Combustible Liquids Certified for Canada
<a href="#">EGHX.MH4732</a>	MOSIER BROS	Historical	Underground Tanks
<a href="#">EGHX.MH4732</a>	MOSIER BROS		Underground Tanks

« 1 »

1 of 1



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025

# UL Research Options: Product IQ

Keyword  Search

UL Category Control Number

Company Name

File Number

Location

**Add Filter**

[Cancel](#) [Reset](#) [Save Search](#)

Action

« 1 2 »

Document Name	Company Name	Notes	UL CCN Description
<a href="#">EGVV.MH17696</a>	MORRISON BROTHERS CO	Historical	Tank Accessories for Flammable and Combustible Liquids
<a href="#">EGVV.MH17696</a>	MORRISON BROTHERS CO		Tank Accessories for Flammable and Combustible Liquids
<a href="#">EGVV7.MH17696</a>	MORRISON BROTHERS CO	Historical	Tank Accessories for Flammable and Combustible Liquids Certified for Canada
<a href="#">EGVV7.MH17696</a>	MORRISON BROTHERS CO		Tank Accessories for Flammable and Combustible Liquids Certified for Canada
<a href="#">EGVV7.MH21138</a>	MORRISON BROTHERS CO	Historical	Tank Accessories for Flammable and Combustible Liquids Certified for Canada
<a href="#">EGVV7.MH21138</a>	MORRISON BROTHERS CO		Tank Accessories for Flammable and Combustible Liquids Certified for Canada
<a href="#">EGVV7.MH21154</a>	MORRISON BROTHERS CO	Historical	Tank Accessories for Flammable and Combustible Liquids Certified for Canada
<a href="#">EGVV7.MH21154</a>	MORRISON BROTHERS CO		Tank Accessories for Flammable and Combustible Liquids Certified for Canada
<a href="#">EUCV.MH7334</a>	MORRISON BROTHERS CO	Historical	Shutoff Valves, Emergency
<a href="#">EUCV.MH7334</a>	MORRISON BROTHERS CO		Shutoff Valves, Emergency
<a href="#">EUQT.MH10308</a>	MORRISON BROTHERS CO		Dispensing-device Accessories, Miscellaneous
<a href="#">EUQT7.MH10308</a>	MORRISON BROTHERS CO		Dispensing-device Accessories, Miscellaneous Certified for Canada
<a href="#">EXHZ.E487552</a>	MORRISON BROTHERS CO		ATEX Directive Certification Services
<a href="#">IILX.MP5161</a>	MORRISON BROTHERS CO	Historical	Flame Arresters and Flame Arrester-Vent Valve Combinations for Oil Storage Tanks
<a href="#">IILX.MP5161</a>	MORRISON BROTHERS CO		Flame Arresters and Flame Arrester-Vent Valve Combinations for Oil Storage Tanks

Feedback



# UL Research Options: Product IQ

3/10/25, 11:42 AM

EELU7.GuidelInfo - Protected Aboveground Tanks for Flammable and Combustible Liquids Certified for Canada | UL Product IQ

UL Product iQ®

EELU7.GuidelInfo - Protected Aboveground



## Protected Aboveground Tanks for Flammable and Combustible Liquids Certified for Canada

[See General Information for Fixed and Stationary Storage Tanks Certified for Canada](#)

### USE AND INSTALLATION

This category covers protected aboveground tanks for flammable and combustible liquids intended for the aboveground storage of flammable and combustible liquids at atmospheric pressure. The tank constructions are provided with integral secondary containment and are designed to reduce the heat transferred to the primary tank exposed to an external hydrocarbon-pool fire. These tanks also provide resistance against vehicle impacts and small arms attack.

Protected aboveground tanks for flammable and combustible liquids, such as gasoline, fuel oil, or similar products with a specific gravity not greater than 1.0 are intended for stationary installation and use in accordance with Part 4 of the "National Fire Code of Canada," CSA B139 Series, "Installation Code for Oil-Burning Equipment," the "CCME Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products," and the requirements of the Authority Having Jurisdiction.

### FACTORS NOT INVESTIGATED

These tanks have not been investigated to determine acceptability for use after fire exposure, impact by vehicles, or small-arms attack.

### PRODUCT IDENTITY

The following product identity appears on the product:

Prot



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025

# UL Research Options: Market Surveillance

## B. Product Information

Manufacturer's name	<input type="text" value="Onken LLC"/>
Type of product: (portable lamp, toaster, etc.)	<input type="text" value="Portable Transfer Tank for Oil Svc"/>
Product model number	<input type="text" value="DW New Oil, Used Oil Tanks"/>
UL File Number (if known)	<input type="text" value="MH49343"/>
Where did you purchase this product?	<input type="text"/>
Product description	<input type="text" value="Double Walled Storage Tank on caster for Automotive New Oil and Used Oil"/>



# UL Research Options: Market Surveillance

## C. Description of Concern

Concern description (If reporting an online advertising concern, please provide a link.)

It appears that Onken LLC tanks are listed under Outline of Investigation UL 75, Portable Containers and Tanks for Flammable and/or Combustible Liquids, Edition 1, issued 18DEC2014, Category EFTZ. However, the label applied to the tank is making use of UL 142/ULC S601 for Stationary Tanks. UL 142/ULC S 601 tanks are not qualified to be portable.

## Upload Pictures

You can upload up to four (4) images of the product in question. **Please include a photo of the UL Label.** NOTE: At this time, we can accept image formats only, such as JPG, GIF, PNG or BMP. After submitting this form, if you would like to provide additional images, or files in an alternate format, please email us at [Market.Surveillance@ul.com](mailto:Market.Surveillance@ul.com).

File

Choose File Onken LLC label.png



# UL Research Options: Market Surveillance

**UL LISTED** PROTECTED SECONDARY CONTAINMENT ABOVEGROUND TANK FOR FLAMMABLE LIQUIDS No. E70704461 **FIREGUARD®** UL 2085, MH 18244

- FOLLOW INSTALLATION INSTRUCTIONS • TANK IS INTENDED FOR STATIONARY INSTALLATION ONLY.
- PRESSURIZE PRIMARY TANK WHEN PRESSURE TESTING ANNULAR SPACE. • VEHICLE IMPACT RESISTANT
- THIS TANK SHALL BE INVESTIGATED TO DETERMINE ACCEPTABILITY OF USE AFTER FIRE EXPOSURE DAMAGE, OTHER PHYSICAL DAMAGE, OR MISUSE.
- IF A LEAK IS DETECTED (WATER OR FUEL) THIS TANK IS TO BE REMOVED FROM SERVICE. THE LOCAL CODE AUTHORITY AND TANK MANUFACTURER SHOULD BE CONTACTED TO DETERMINE IF THE INSULATION CAN BE REPLACED OR REPAIRED.
- THIS TANK IS INTENDED FOR INSTALLATION IN ACCORDANCE WITH NFPA 30, NFPA30A, NFPA 31 OR THE UNIFORM FIRE CODE STANDARD A-II-F-1
- INSULATED ABOVEGROUND TANK, PROTECTED TYPE • TANK LISTED AS A FIRE RESISTANT SECONDARY CONTAINMENT TANK
- PROJECTILE RESISTANT (IF PUNCHED, STEEL THICKNESS MEETS REQUIREMENTS)

**50549**

Stanwade Metal Products  
1-800-826-5243

6968 State Route 305  
Hartford, Ohio 44424

Capacity (gallons)									
9	8	7	6	5	4	3	2	1	0
■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■
									X 10000
									X 1000
									X 100
									X 10

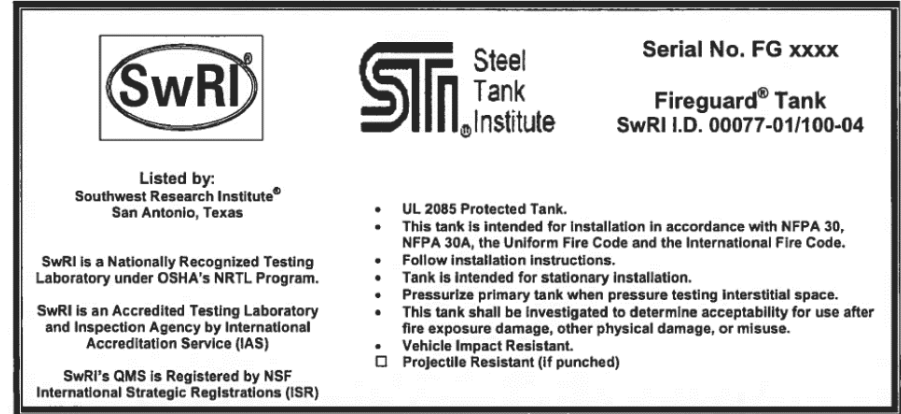
  

Empty Tank Weight (pounds)									
9	8	7	6	5	4	3	2	1	0
■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■
									X 10000
									X 1000
									X 100
									X 10

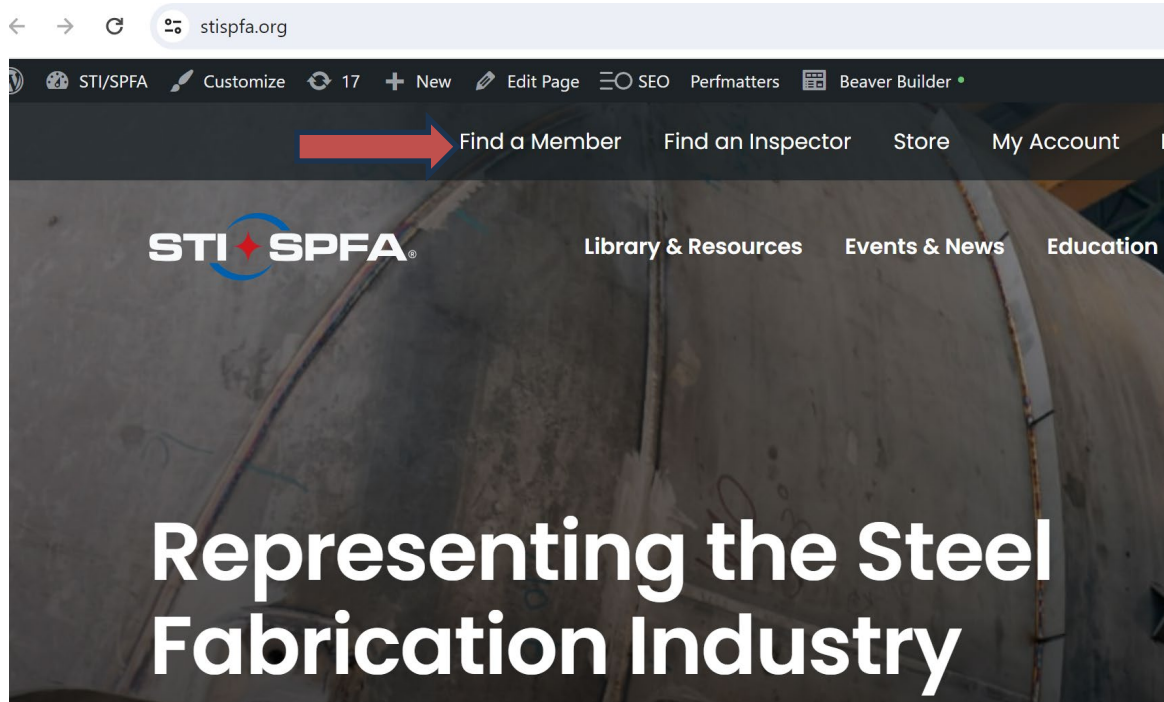


# Gather info from STI/SPFA on a tank

- Tank Information often relies on the owner or the installer returning the Warranty Confirmation card.
- If you can see and collect the STI/SPFA serial number, that can be helpful.
- If you can see and collect an STI/SPFA number and a UL or SwRI number, that helps even more.
- Contact [info@stispfa.org](mailto:info@stispfa.org)



# Gather info from STI/SPFA for a member



# Gather info from STI/SPFA for a member



[Store](#)

[Directory](#)


[Events](#)


[Community](#)

[Join](#)


[← Back to Directory](#)

## Mosier Brothers

 19580 Avenue 344 P.O. BOX 577 Woodlake, CA 93286

 559-564-3304

 [Visit Website](#)

 STI Licensed Shop-Fabricated Tank Membership / Member Since: 1973



### ACT-100® Composite Tanks

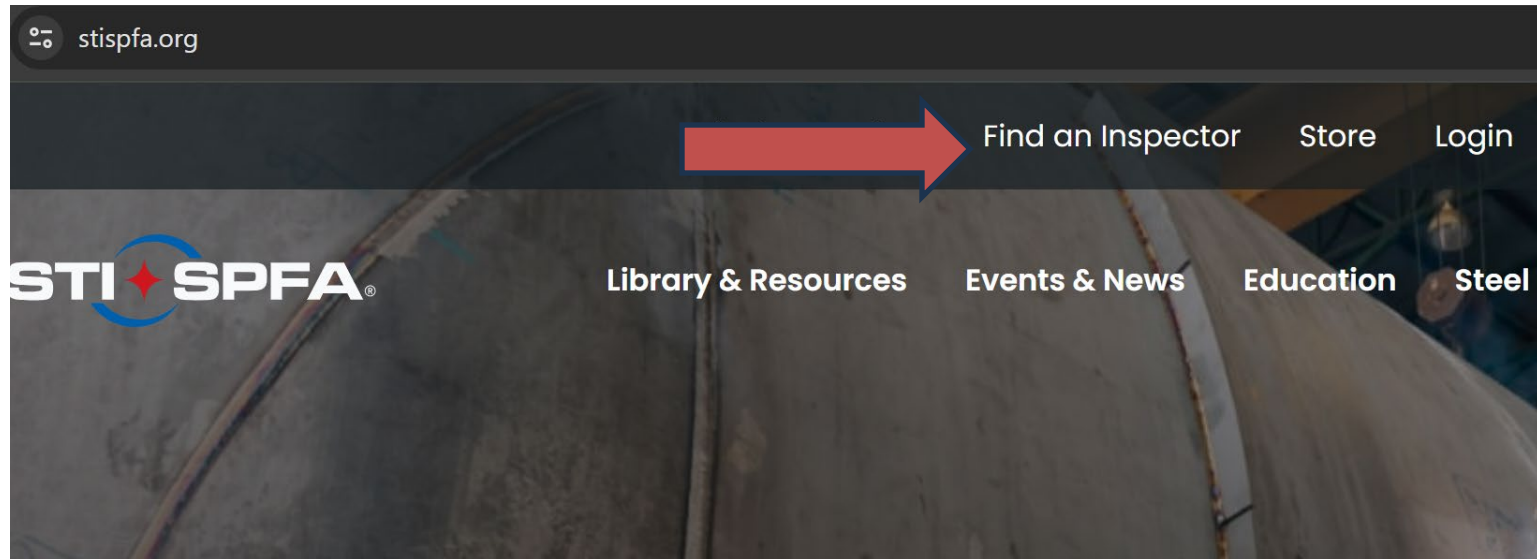
Yes

### ACT-100U® Composite Tanks

27th California Unified Program  
Annual Training Conference  
March 24-27, 2025



# Gather info from STI/SPFA for an SP001 Inspector or CP Tester



# Gather info from STI/SPFA for an SP001 Inspector or CP Tester

[← Back to SP001 Aboveground Tank System Inspector](#)

## Craig Robert Fletcher

Principal/CEO  
Fletcher Consultants, Inc.

 4858 Harbord Drive Oakland, CA 94618



### Company

Fletcher Consultants, Inc.



### Services

Engineering Services, Testers

### SP001 Certified Inspector ID

AST-R10709

### SP001 Expiration Date

3/1/2029

# Where are the Monthly/Annual Checklists and Owner Record?



FEBRUARY 6, 2024

## Five Reasons to Work Safely Today

[Read More →](#)



FEBRUARY 13, 2024

## STI SP001 Portable Container Monthly Inspection Checklist

[Read More →](#)



FEBRUARY 13, 2024

## STI SP001 Annual Inspection Checklist

[Read More →](#)

# Where are the Monthly/Annual Checklists and Owner Record?



FEBRUARY 6, 2024

## Five Reasons to Work Safely Today

[Read More →](#)



FEBRUARY 13, 2024

## STI SP001 Portable Container Monthly Inspection Checklist

[Read More →](#)



FEBRUARY 13, 2024

## STI SP001 Annual Inspection Checklist

[Read More →](#)



# Telltails for the field – not 100% but helpful



# Telltails for the field – not 100% but helpful



# Telltails for the field – not 100% but helpful



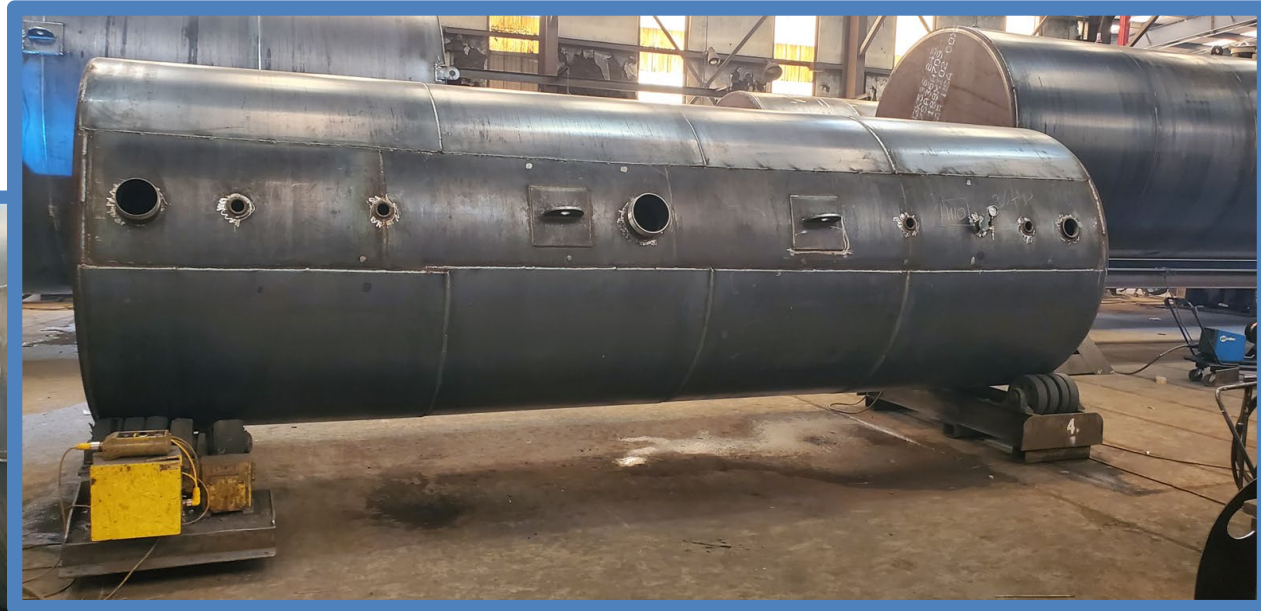
# Telltales for the field – not 100% but helpful



# Telltails for the field – not 100% but helpful



# Telltails for the field – not 100% - but helpful



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025



# Any Questions?

Steve Pollock, Technical Manager STI/SPFA  
spollock@stispfa.com



27th California Unified Program  
Annual Training Conference  
March 24-27, 2025