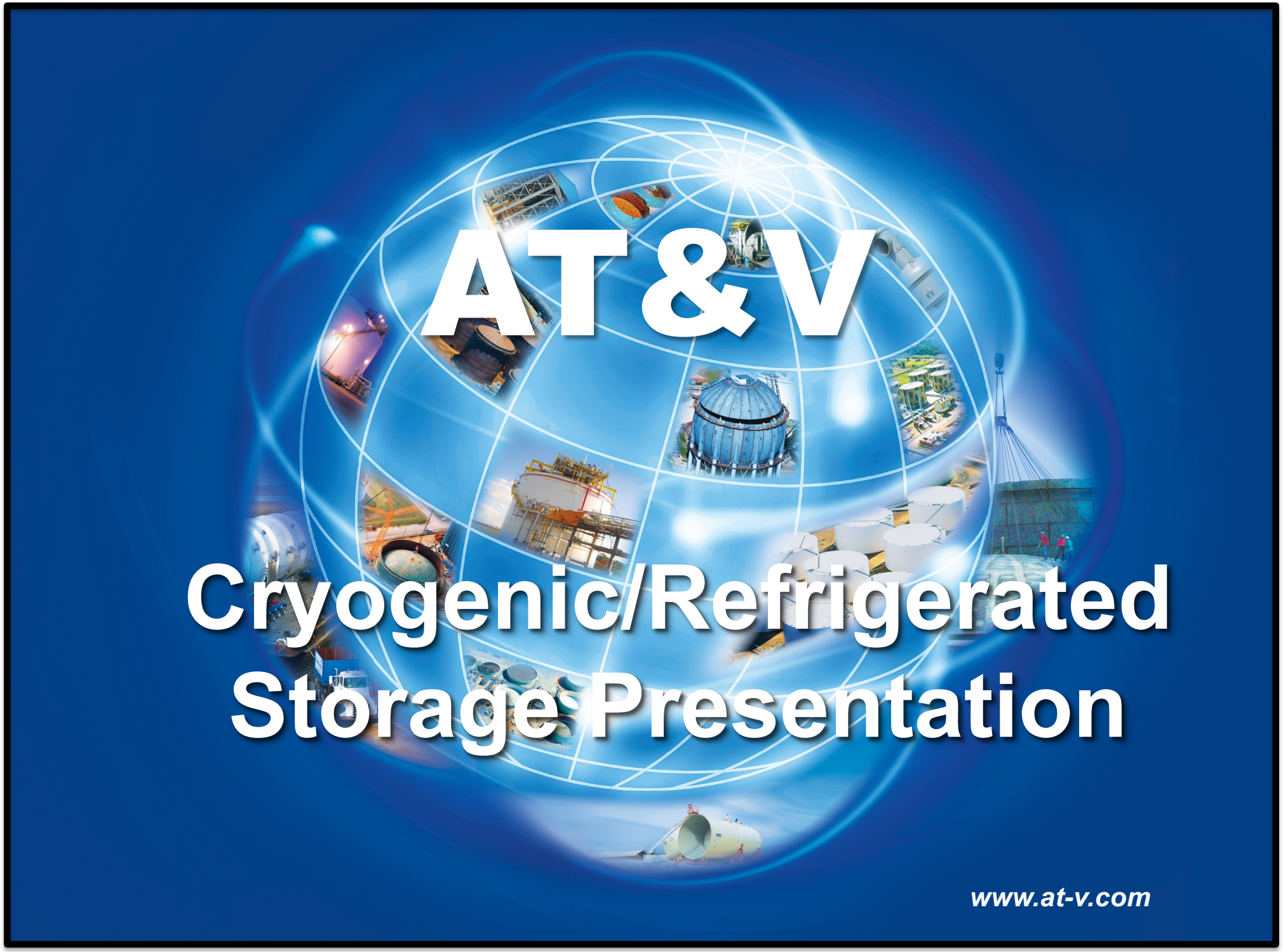
AT&V
Cryogenic/Refrigerated
Storage Presentation
www.at-v.com

AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

Table of Contents

AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

Introduction to AT&V

American Tank & Vessel, Inc's. (AT&V) AT&V engineers have been involved in designing and constructing tanks and terminals from as early as the mid 50's, working on projects from crude to cryogenic, 1 tank to 50 and from China to Jamaica.

AT&V provides a unique service, with the in-house ability to deliver a single tank or an entire terminal. Combined with patented technology and proprietary systems, AT&V can offer the most advanced applications for your tank or terminal needs around the world.

As the U.S. markets move to new fuels, AT&V is pioneering advanced designs in the storage of LNG, CNG, LIN/LOX, and other cryogenic and refrigerated applications. AT&V realizes the importance of advancing the technology associated with our industry and participates in tank and vessel committees under API-650 and API-620. In addition, the AT&V staff is involved with API, NFPA, AWS, NACE, ASME, and other leading organizations. This, combined with AT&V's in-house research and development is helping to pioneer improvements in the storage of cryogenic and refrigerated products.

AT&V Management started work on flat bottom LNG storage tank designs in the 1950s. Other team managers have years of LNG experience in design, fabrication, field erection, and project management. This experience involves all major US Codes, industry standards, and proprietary systems developed by AT&V.

AT&V is your one-source contact for design, procurement and construction of terminal projects around the world.

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AMERICAN TANK & VESSEL, Inc.

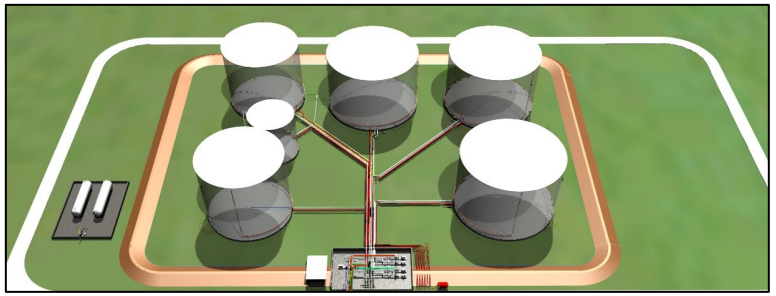
LNG/LPG Presentation

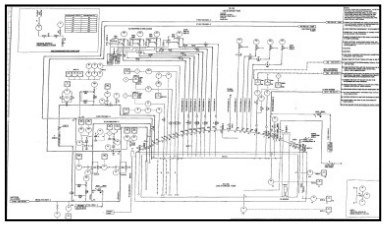
Design Systems

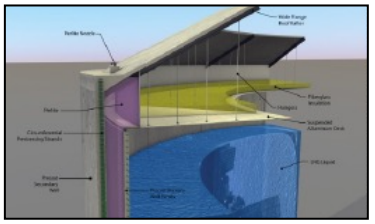
AT&V supports engineering disciplines for all aspects of LNG tank design, construction, operation, erection and testing. AT&V's in-house engineering supports proprietary technology to improve welding systems, NDE, safety, tank emissions and a variety of other issues for storage and terminals.

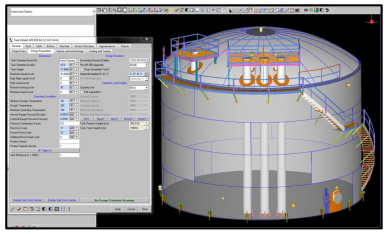
AT&V's engineering support for turnkey terminals includes siting, permits, layouts, environmental, electrical/instrumentation, civil, mechanical, process, automation, inbound/outbound applications and miscellaneous disciplines to customize your applications. AT&V's patented and proprietary technologies can improve the performance and overall value of your terminal applications. Whether the application requires single containment or full containment storage, AT&V's engineering team has the experience.

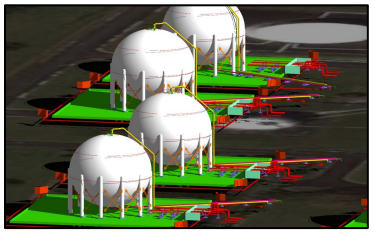
AT&V's advanced line of computer generated drawings (CGD) and in-house software are helping pioneer efficiency, as well as schedule performance. Experience with insulation systems, foundation systems, instrumentation, and seismic factors gives AT&V the full design support needed for state-of-the-art LNG and LPG storage facilities.











The AT&V team will bring a world of experience to meet your objectives in an efficient, timely and professional manner, providing the most advanced technologies in the industry.

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AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

U.S. Fabrication

Fabrication Equipment:
- Over 300,000 sq. ft. Under Hook
- Over 200 Acres for Lay down
- 20,000 sq. ft. Machine Shop
- 10,000 sq. ft. Maintenance Facility
- R&D Facility
- In-house Quality Control Department
- In-house Safety Department
- In-house Engineering Services
- (6) Sets of Plate Rolls
- (3) Forming Presses
- In-house PWHT
- In-house Normalizing
- In-house Automated Paint Line
- In-house Pipe Fabrication Bay

Transportation Methods:
- Trucking Out of All (3) Facilities
- Rail Out of Lucedale and Mosspoint
- Barge or Ship Out of Mosspoint Water Facility
- **4th U.S. Fabrication location in Louisiana not shown.**

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150 Acre Mississippi Waterfront Plant

80 Acre Gulf Coast Plant + 2016 Expansion

Houston Export/Fabrication Plant

Shop Built Vessels

AT&V supports multiple shops with ASME Stamps for the fabrication of vessels. Shipping is supported by truck, rail, and water. AT&V's facilities will support forming heads, rolling all plate, post-weld heat treatment, full assemblies, and testing, insulating, and shipping. Some of the projects performed to date by AT&V in-house include the following:

- Max Diameter: Over 50'
- Max Length: Over 500'
- Max Machining Diameter: 50'
- Rolled Plate: Up to 4 ½" x 20'
- Max Dished or Formed: 7"
- Welded Joints: 7" Max
- 4,500 Ton Test Slab
- PWHT: 33' Diameter x 220' Length

AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

Site Construction Services

AT&V's experience associated with construction spans the use of labor from Sri Lanka, Pakistan, the Philippines, Brazil, Trinidad, Jamaica, Canada, the Caribbean, West Africa and the United States. AT&V's management and systems have a proven track record of leading the world standards for safety, quality, schedules and productivity.

AT&V's construction management represents the best talent in the world, coupled with AT&V's philosophy of empowerment. Through proper education, tooling and support AT&V empowers their management to set new standards for our customers.

AT&V's varied experience from rainforest to deserts, from high density populations to remote islands, proves that the AT&V formula works. AT&V has established procedures and a track record that has yielded consistent high performance. AT&V's approach to your project will identify the parameters that require special attention to ensure that the appropriate adjustments are incorporated.

AT&V's construction staff, technology, empowerment, equipment and corporate support make the difference no matter what the location.

AT&V's site and construction experience involves projects from the East Coast to the West Coast in the U.S., and from Angola to China.

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LNG/LPG Presentation

Experience in Field Erection and Gas Storage

Size	Code/Standard	Type
2 – 35’ Ø X 40’ tall	API-620 Q	Double Wall Stainless Steel
1 – 30’ Ø X 34’ tall	API-620 Q	Double Wall Stainless Steel
1 – 180’ Ø X 100’ tall	API-620 R	Stainless Steel
1 – 90’ Ø X 90’ tall	API-620 R	Carbon Steel
1 – 160’ Ø X 120’ tall	API-620 R	Carbon Steel
2 – 110’ Ø X 90’ tall	API-620 R	Carbon Steel
6 – 105’ Ø X 115’ tall	API-620 R	Carbon Steel
2 – 110’ Ø X 110’ tall	API-620 R	Carbon Steel
1 – 50’ Ø X 48’ tall	API-620 R	Stainless Steel
1 – 40’ Ø X 48’ tall	API-620 R	Carbon Steel
1 - 47’- 6” X 56’ tall	API-620 Q	Double Wall Stainless Steel (Praxair)
2 – 47’ Ø Spheres	ASME Sec. VIII	Div 2 Low Temperature
1 – 110’ Ø X 90’ tall	API-620 R	Single Wall Suspended Deck
1 – 55’ Ø X 55’ tall	API-620 Q	Double Wall Stainless Steel
1 – 44’ Ø X 54’ tall	API-620 Q	Double Wall Stainless Steel
1 – 73’ Ø X 54’ tall	API-620 R	Single Wall Carbon Steel
1 – 50’ Ø X 60’ tall	API-620 Q	Double Wall Stainless Steel
1 – 51’-6” X 56’ tall	API-620 Q	Double Wall Stainless Steel (Praxair)
1 – 33’ Ø X 47’ tall	API-620 Q	Double Wall Stainless Steel (AZ)
1 – 33’ Ø X 33’-6 tall	API-620 Q	Double Wall Stainless Steel (AZ)
1 – 60’ Ø X 60’ tall	API-620 Q	Double Wall Stainless Steel
1 – 68’ Ø-” X 79’-4 tall	API-620 Q/625	Full Containment Suspended Deck
1 – 64’- 8” Ø X 43’-6” tall	API-625 Q/625	Single Containment Double Wall
1 – 76’-6” Ø X 98’ tall	API-620 Q/625	Double Wall Stainless Steel
1 – 44’-8 Ø X 55’-5’ tall	API-620 Q/625	Double Wall Stainless Steel
1 – 117’ Ø X 111’ tall	API-620 Q/625	Concrete & 9% Nickel
1 – 33’ Ø X 49’ tall	API-620 Q/625	Double Wall Stainless Steel
1 – 88’ Ø X 80’ tall	API-620 Q/625	Full Containment Suspended Deck
2 – 111’ Ø X 93’ tall	API-620 R/625	Full Containment Suspended Deck

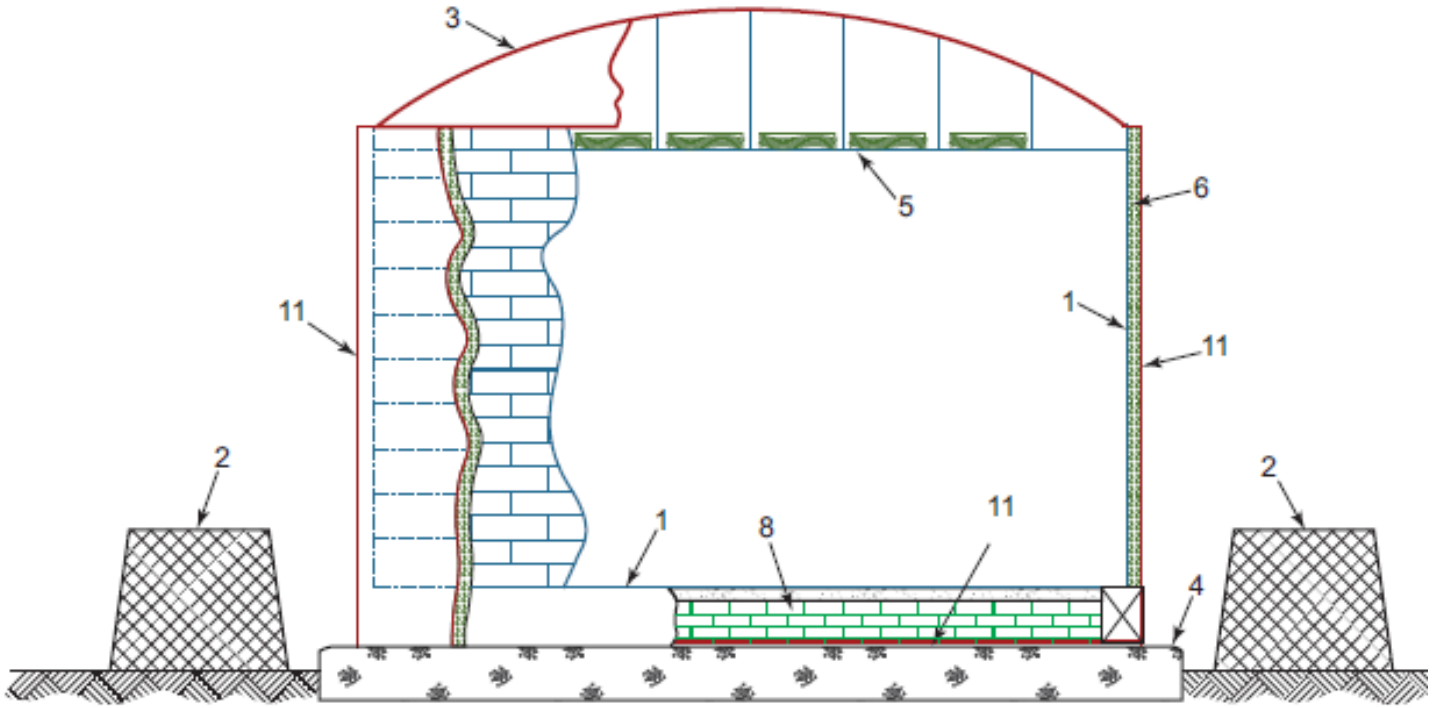
LNG/LPG Presentation

Experience in Balance of Gas Plant Work

Scope of Work	Contractor Role	Date in Service
14 MMSCFD Liquefaction Pre-treatment System and Refurbishment of 7 MMSCFD Liquefaction Train	EPC	2016
10 MMSCFD Liquefaction System	EPC	2015
20 MMSCFD Pre-Treatment System	EPC	2014
60 MMSCFD Vaporization System (Shell and Tube) Expansion and LNG Pump Upgrades	EPC	2012
200 MMSCFD Vaporization (Shell and Tube) System, 11 MMSCFD Liquefaction Pre-treatment System, 2000 KW Emergency Generator	EPC	2012
120 MMSCFD Vaporization Replacement, Submerged	EPC	2012
Two – Dual Bay Truckloading Facilities, 300 GPM per	EPC	2015
Dual Bay Truckload Station including Truck Loading Pump	EPC	2013
Plant-wide Control System Upgrade - Migration from Siemens to Allen Bradley ControlLogix Platform	EPC	2013
Boiloff Compressor Replacement	EPC	2014
Two Bay Truck Rack, Full Tank Instrumentation, and Piping works from tank to Liquefaction facility	EPC	2016
Full Containment Tank Instrumentation System and PLC/HMI Integration on New Peaking Facility	EPC	2017
Two Bay Truck Rack, Full Tank Instrumentation, Piping, and PLC/HMI Programming on New Facillity	EPC	2020

LNG/LPG Presentation

API-625 Storage Systems



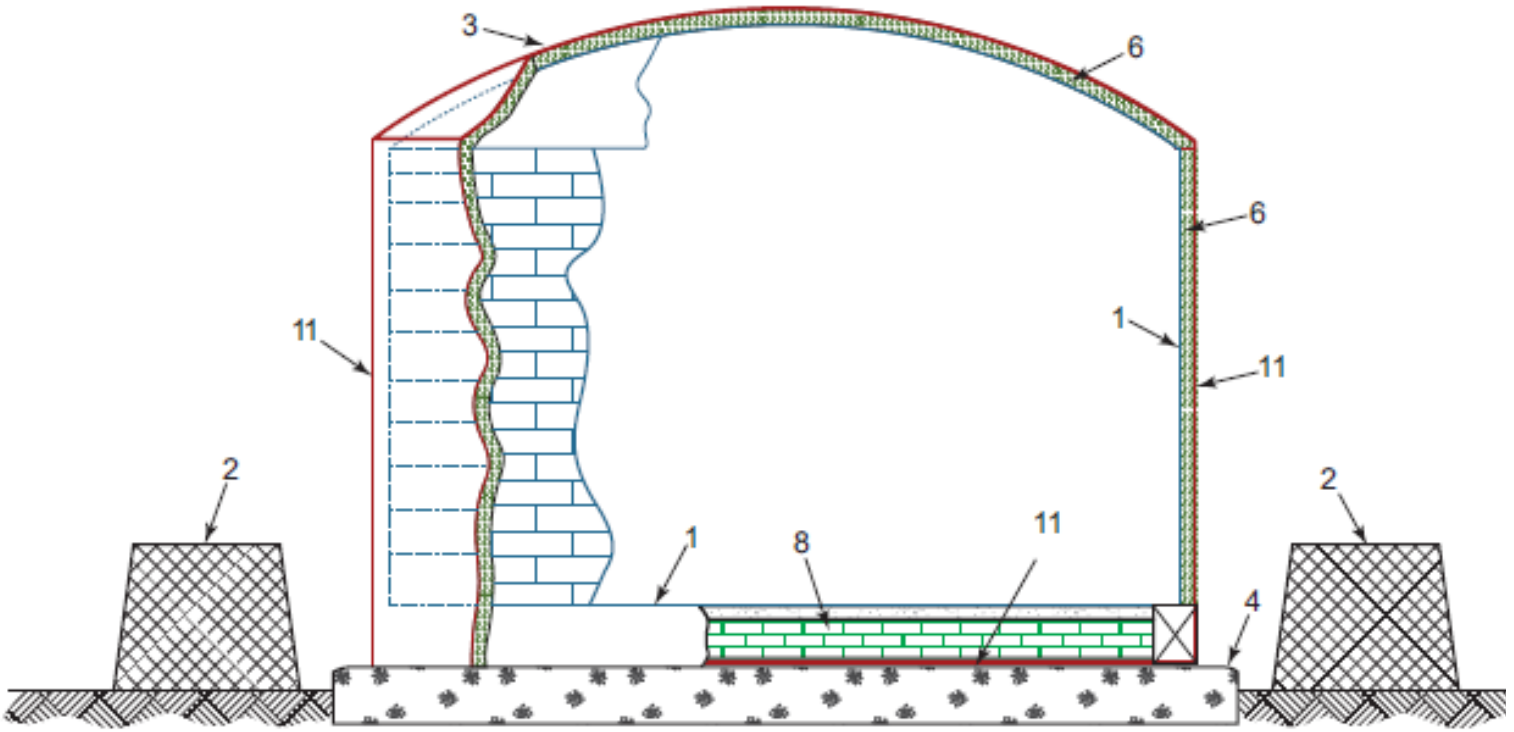
Key

1 primary liquid container (low temp steel)
2 secondary liquid container (dike)
3 warm vapor container (roof)
4 concrete foundation
5 suspended deck with insulation
6 insulation (external)
8 bottom insulation
11 moisture vapor barrier

Figure 5.1—Single Containment Tank System
Single Wall with Steel Primary Container and Suspended Insulation Deck

LNG/LPG Presentation

API-625 Storage Systems



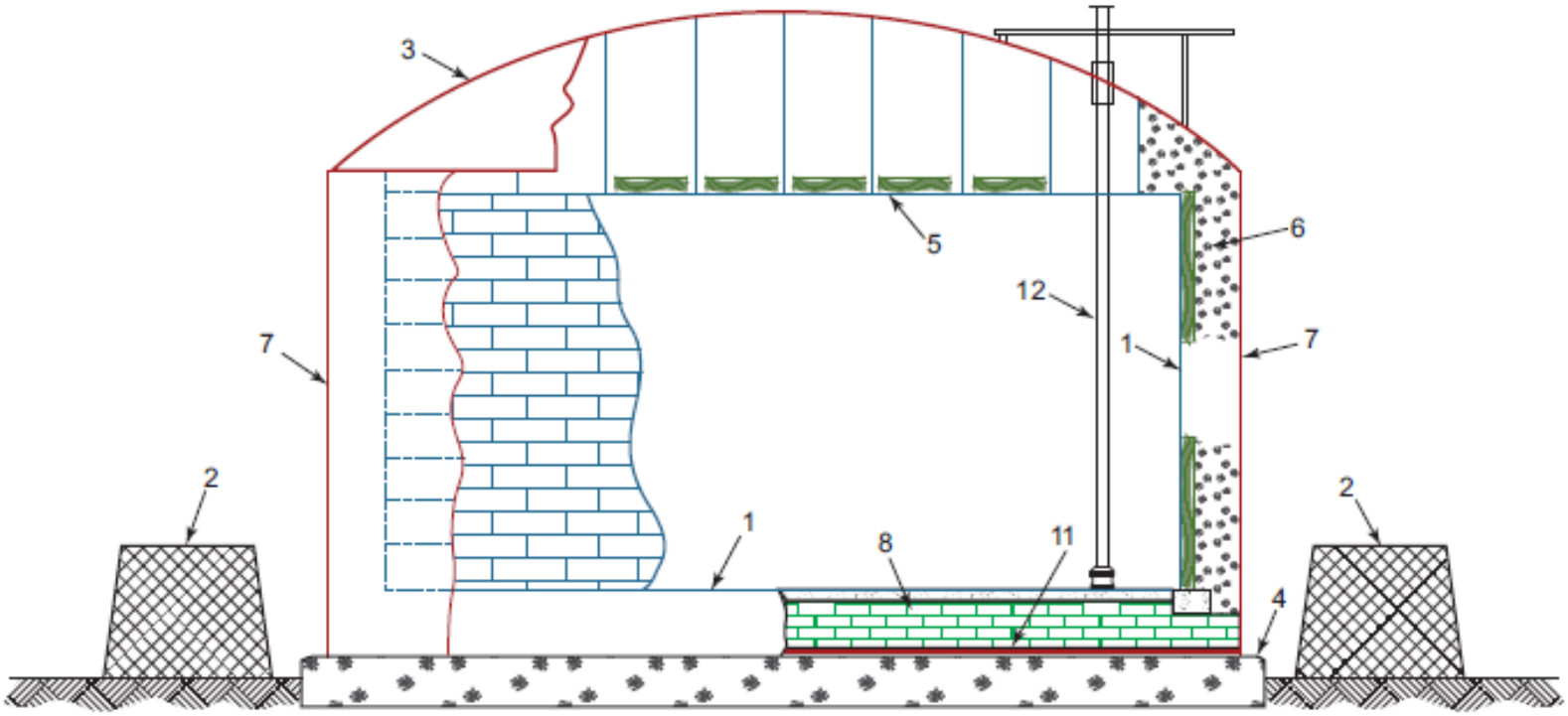
Key

1 primary liquid container (low temp steel)
2 secondary liquid container (dike)
3 refrigerated temp roof
4 concrete foundation
6 insulation (external)
8 bottom insulation
11 moisture vapor barrie

Figure 5.2—Single Containment Tank System
Single Wall with Steel Primary Container and External Insulation

LNG/LPG Presentation

API-625 Storage Systems



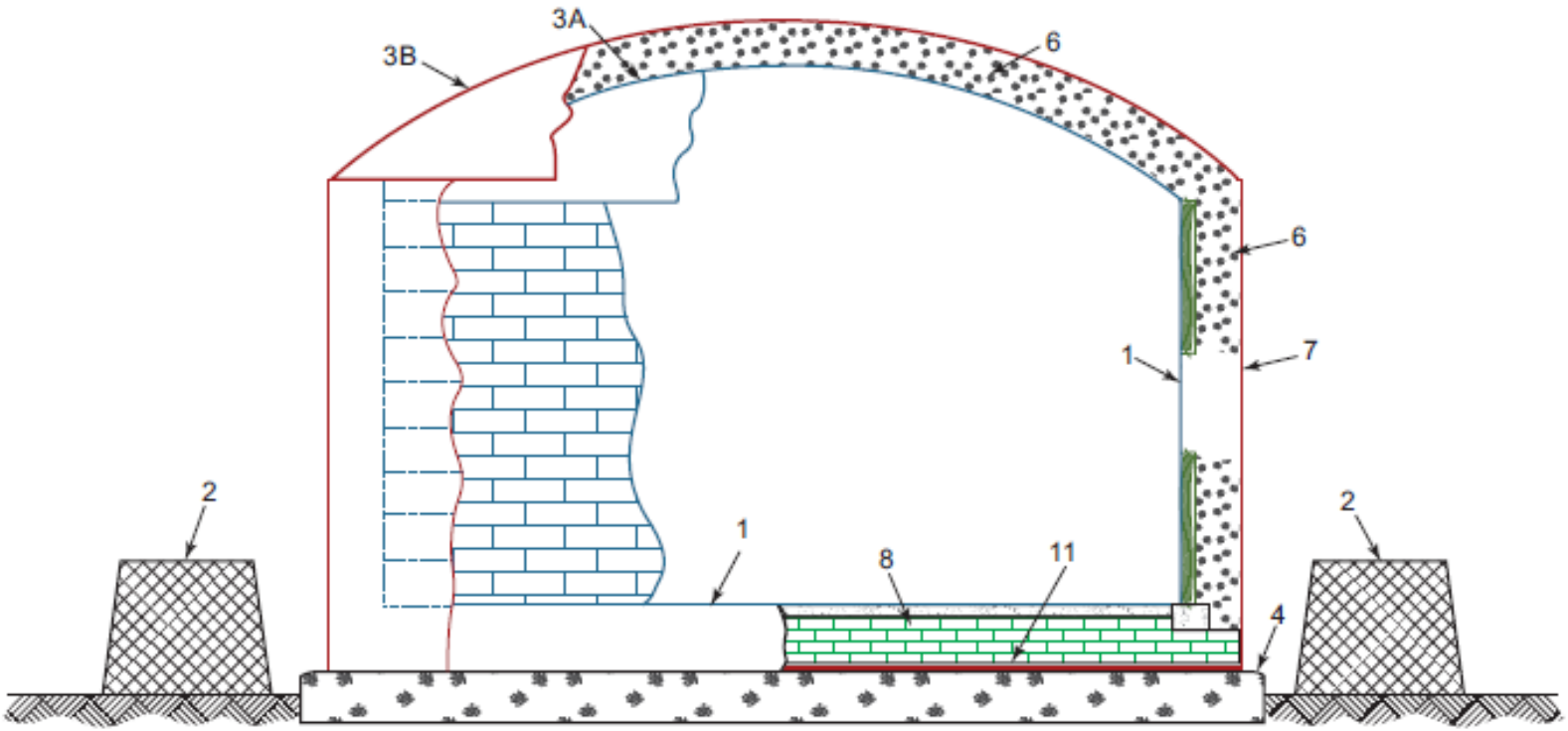
Key

1 primary liquid container (low temp steel)
2 secondary liquid container (dike)
3 warm vapor container (roof)
4 concrete foundation
5 suspended deck with insulation
6 insulation (annular space)
7 warm vapor container (outer shell)
8 bottom insulation
11 warm vapor container (outer bottom)
12 pump column

Figure 5.3—Single Containment Tank System
Double Wall with Steel Primary Container and Steel Vapor Container

LNG/LPG Presentation

API-625 Storage Systems



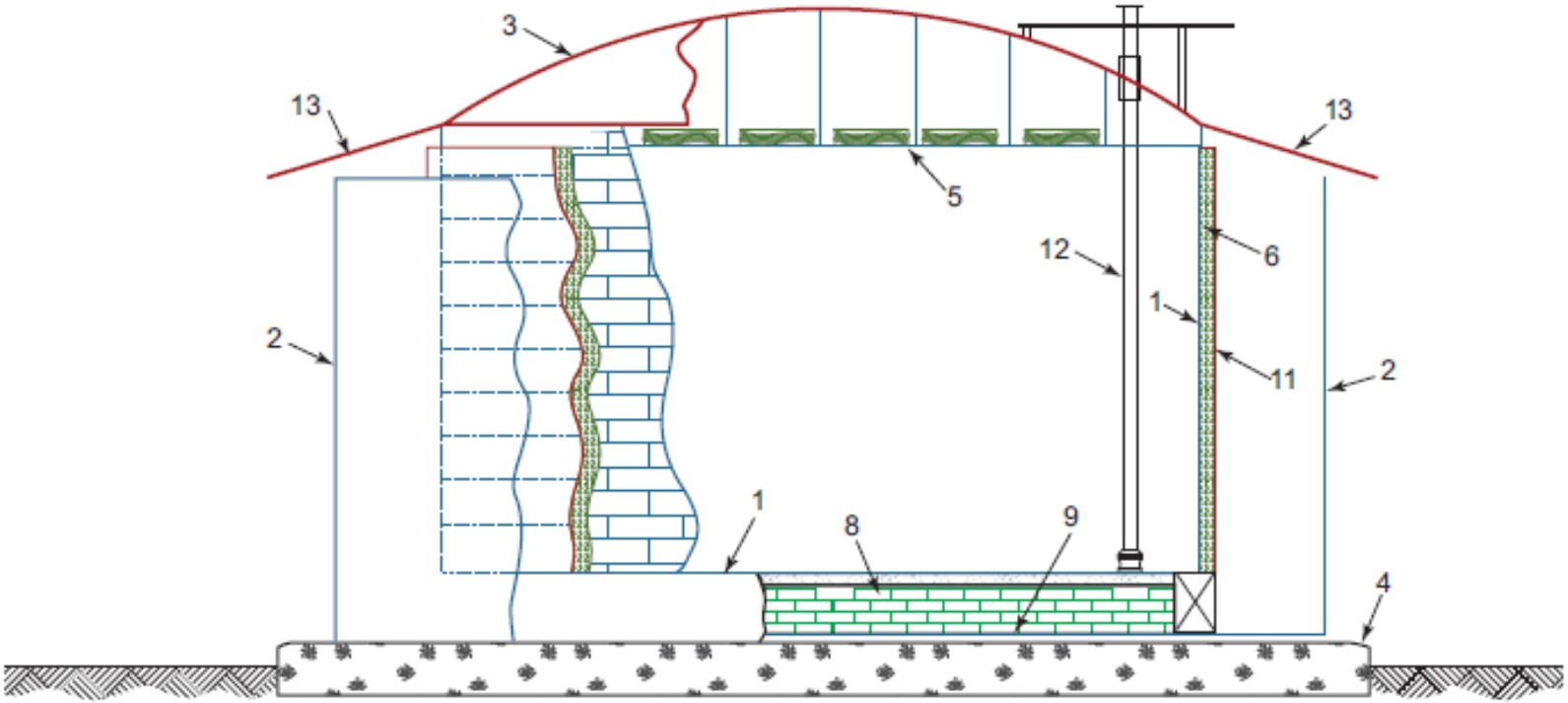
Key

1	primary liquid container (low temp steel)	3B	purge gas container (roof)	7	purge gas container (outer shell)
2	secondary liquid container (dike)	4	concrete foundation	8	bottom insulation
3A	refrigerated temp roof	6	insulation (annular and roof space)	11	purge gas container (outer bottom)

Figure 5.4—Single Containment Tank System
Double Wall with Steel Primary Container and Steel Purge Gas Container

LNG/LPG Presentation

API-625 Storage Systems



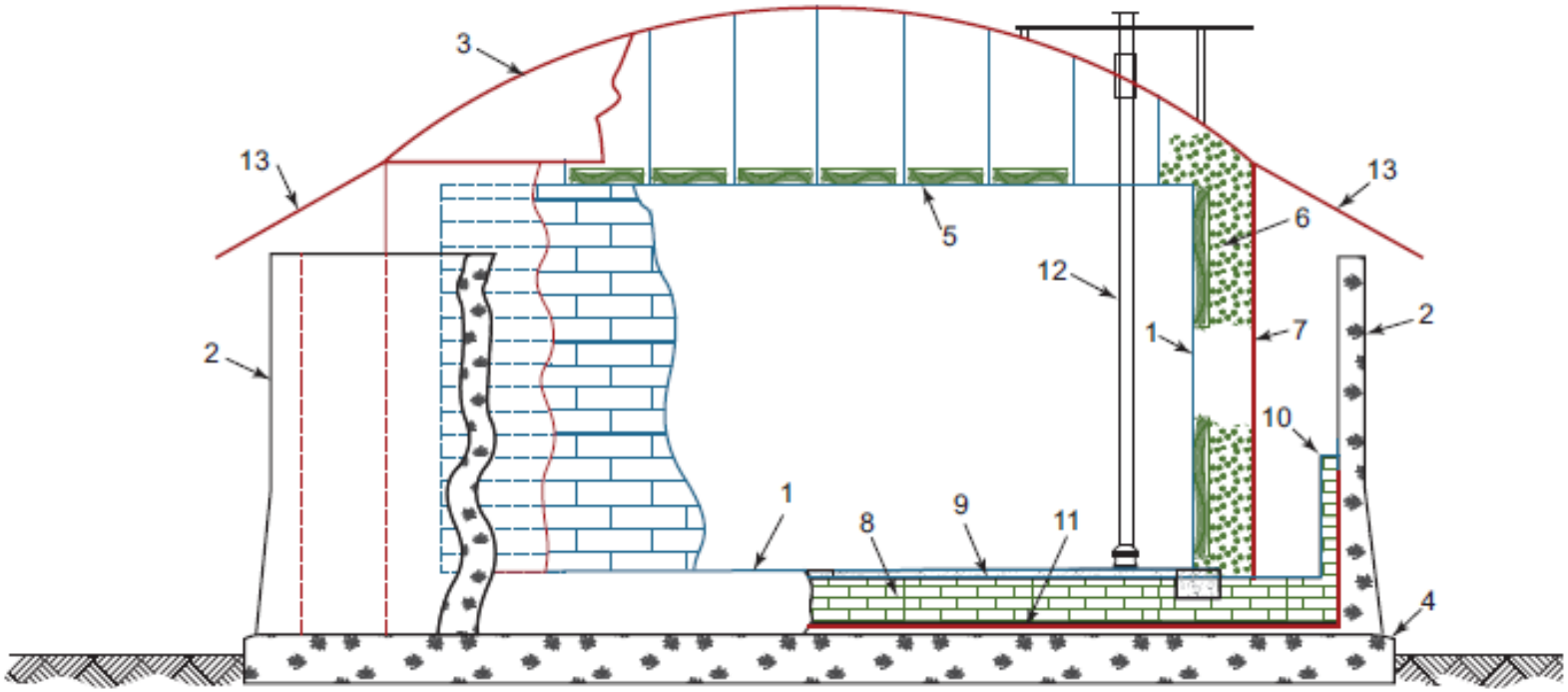
Key

1	primary liquid container (low temp steel)	5	suspended deck with insulation	11	moisture vapor barrier
2	secondary liquid container (low temp steel)	6	insulation	12	pump column
3	warm vapor container (roof)	8	bottom insulation	13	rain shield
4	concrete foundation	9	secondary liquid container (low temp steel)		

Figure 5.5—Double Containment Tank System
Steel Primary Container and Steel Secondary Container

LNG/LPG Presentation

API-625 Storage Systems



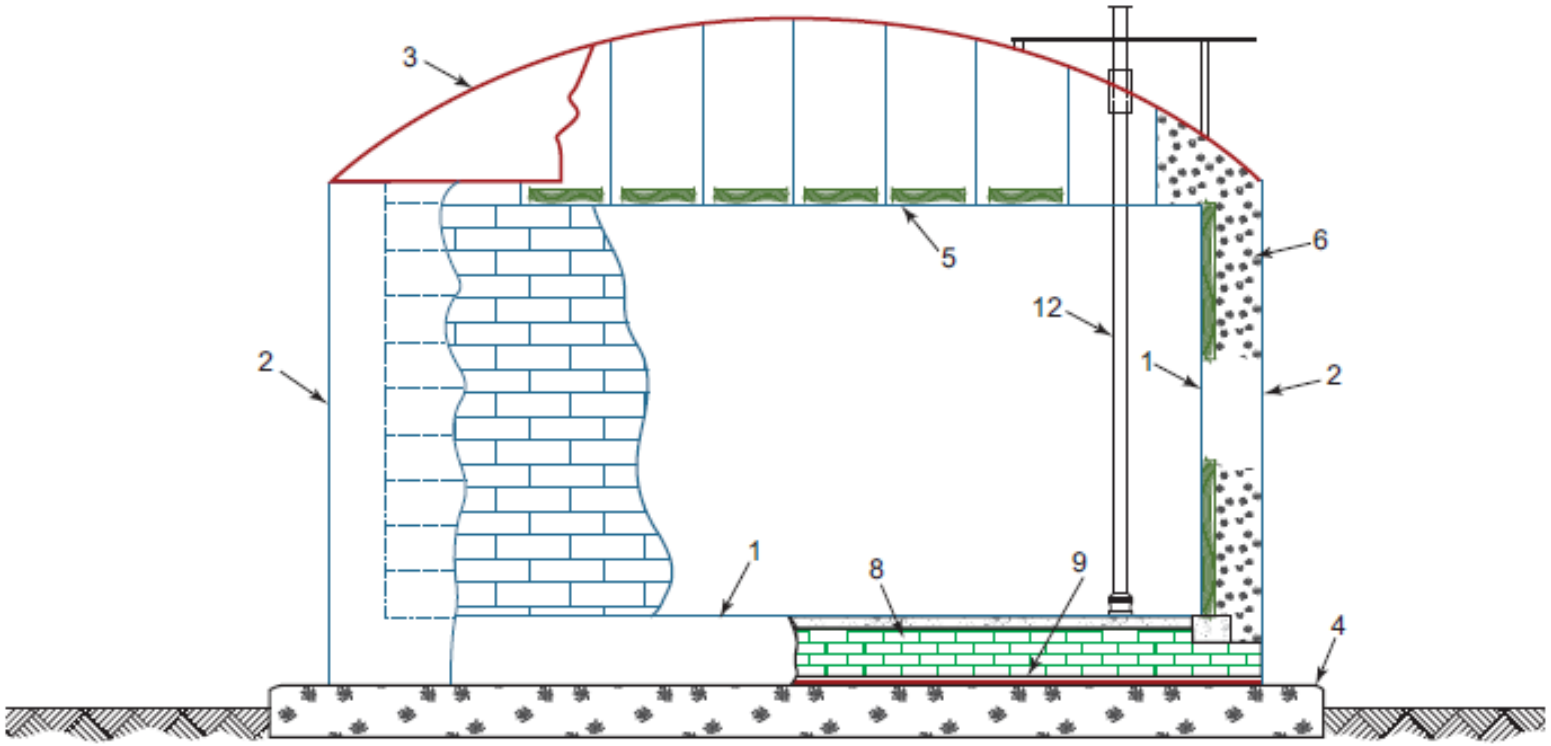
Key

1 primary liquid container (low temp steel)
2 secondary liquid container (concrete)
3 warm vapor container (roof)
4 concrete foundation
5 suspended deck with insulation
6 insulation (annular space)
7 warm vapor container (outer shell)
8 bottom insulation
9 secondary liquid container (low temp steel)
10 thermal corner protection
11 moisture vapor barrier
12 pump column
13 rain shield

Figure 5.6—Double Containment Tank System
Steel Primary Container, Steel Vapor Container, and Concrete Secondary Container

LNG/LPG Presentation

API-625 Storage Systems



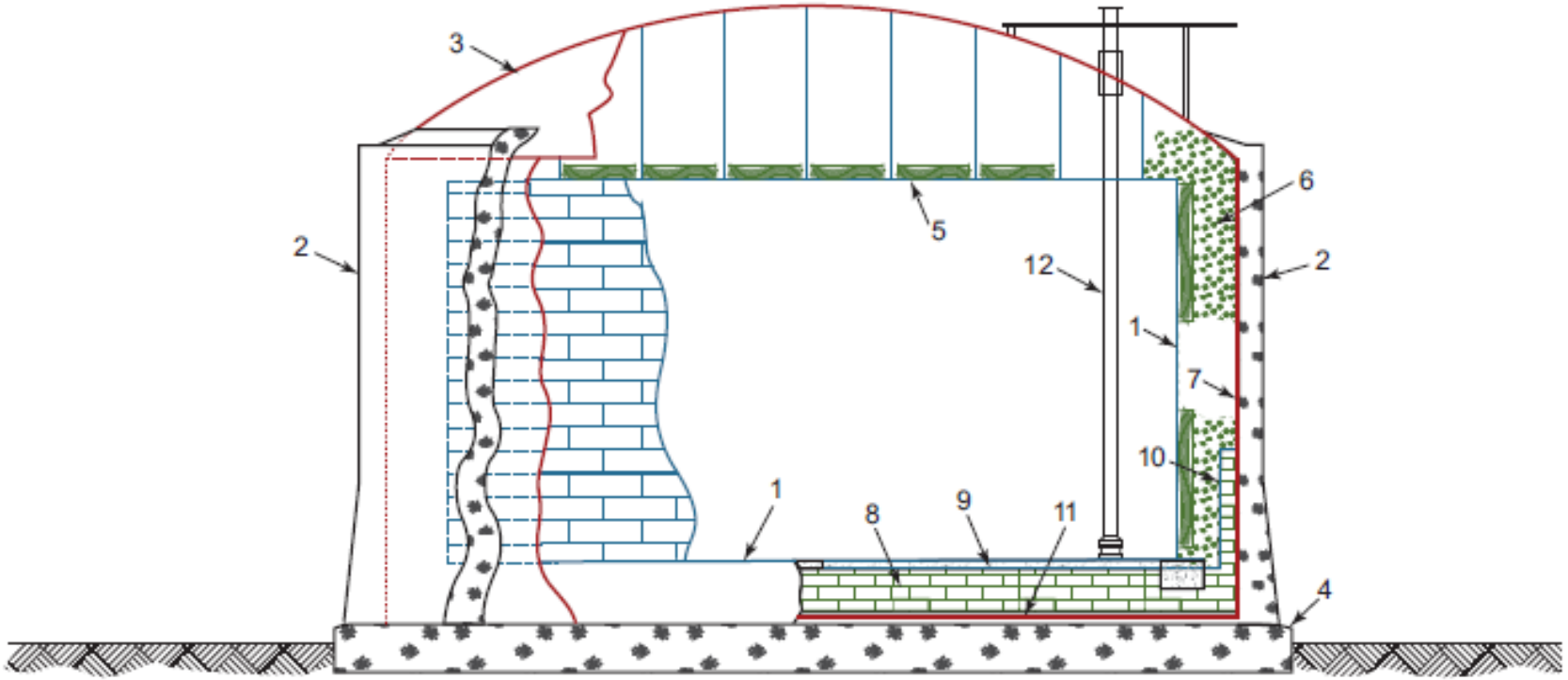
Key

1 primary liquid container (low temp steel)
2 secondary liquid container (low temp steel)
3 warm vapor container (roof)
4 concrete foundation
5 suspended deck with insulation
6 insulation (annular space)
8 bottom insulation
9 secondary liquid container (low temp steel)
12 pump column

Figure 5.7—Full Containment Tank System
Steel Primary Container, Steel Secondary Container, and Steel Roof

LNG/LPG Presentation

API-625 Storage Systems



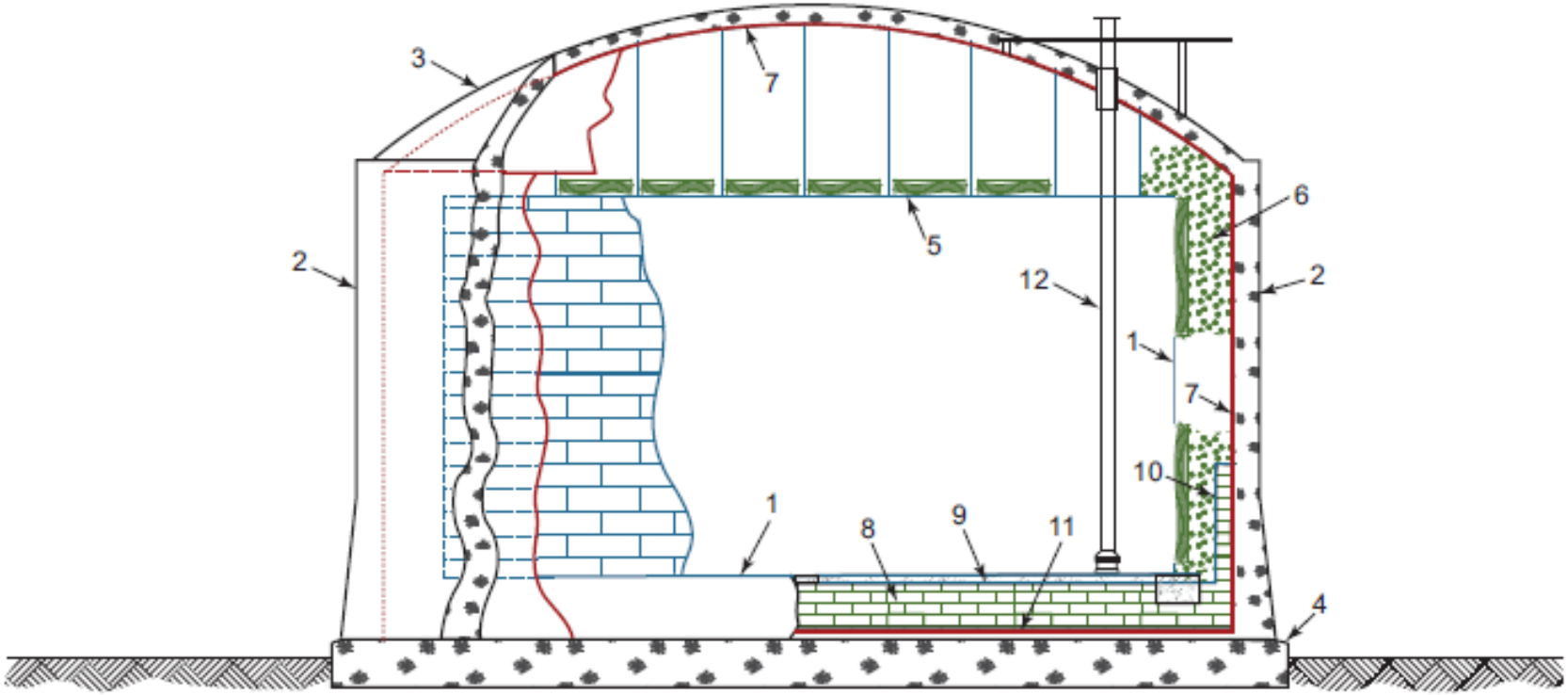
Key

1	primary liquid container (low temp steel)	5	suspended deck with insulation	9	secondary liquid container (low temp steel)
2	secondary liquid container (concrete)	6	insulation (annular space)	10	Thermal corner protection
3	warm vapor container (roof)	7	product vapor container (liner)	11	moisture vapor barrier
4	concrete foundation	8	bottom insulation	12	pump column

Figure 5.8—Full Containment Tank System
Steel Primary Container, Concrete Secondary Container, and Steel Roof

LNG/LPG Presentation

API-625 Storage Systems



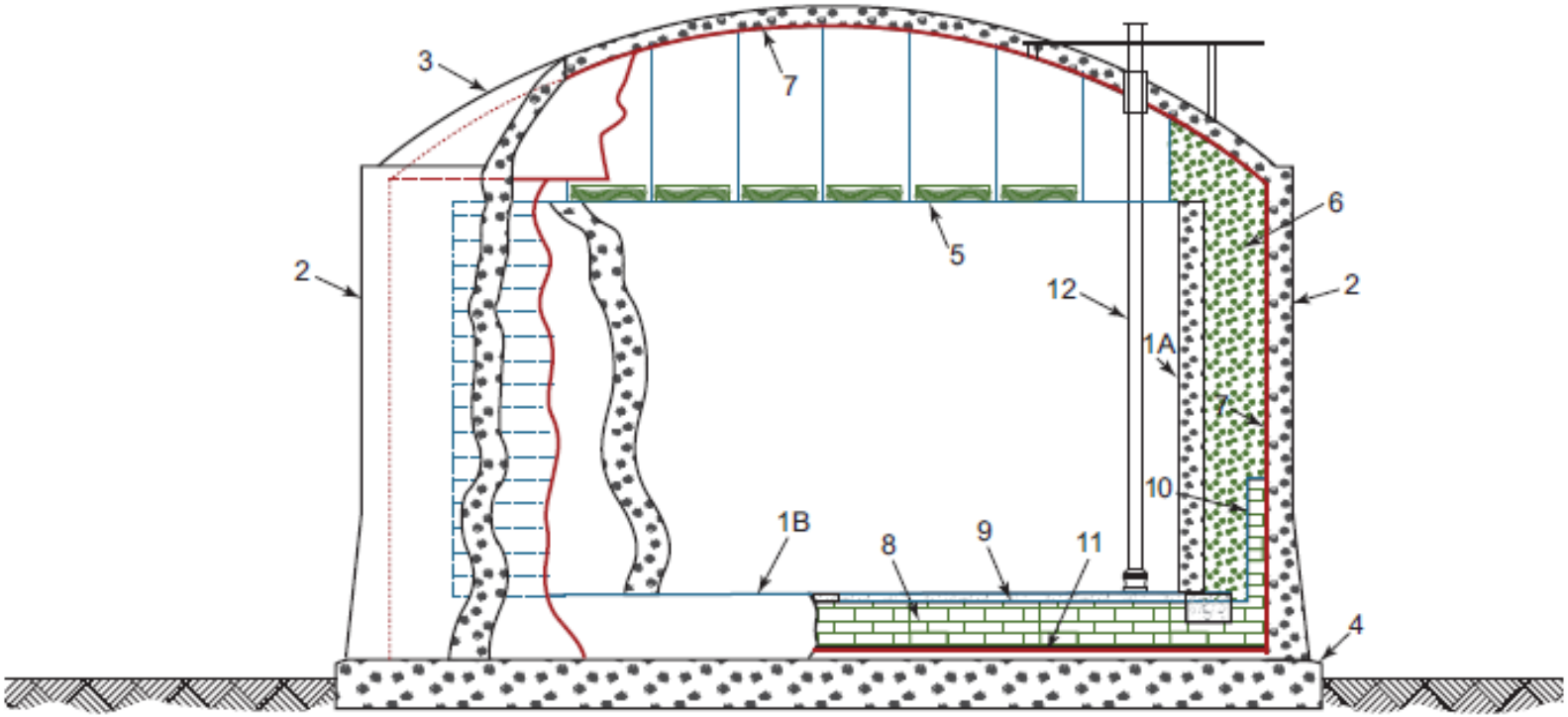
Key

1	primary liquid container (low temp steel)	5	suspended deck with insulation	9	secondary liquid container (low temp steel)
2	secondary liquid container (concrete)	6	insulation (annular space)	10	Thermal corner protection
3	roof (concrete)	7	product vapor container (liner)	11	moisture vapor barrier
4	concrete foundation	8	bottom insulation	12	pump column

Figure 5.9—Full Containment Tank System
Steel Primary Container, Concrete Secondary Container, and Concrete Roof

LNG/LPG Presentation

API-625 Storage Systems



Key

1A primary liquid container (concrete)
1B primary liquid container bottom (concrete or steel)
2 secondary liquid container (concrete)
3 roof (concrete)
4 concrete foundation
5 suspended deck with insulation
6 insulation (annular space)
7 product vapor container (liner)
8 bottom insulation
9 secondary liquid container (low temp steel)
10 Thermal corner protection
11 moisture vapor barrier
12 pump column

Figure 5.10—Full Containment Tank System
Concrete Primary Container, Concrete Secondary Container, and Concrete Roof

AMERICAN TANK & VESSEL, Inc.

Containment Solutions

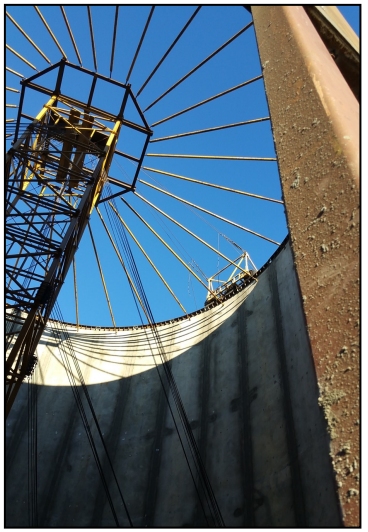
AT&V Precast Concrete Technology

Through AT&V's Precast Concrete Technology, AT&V is able to offer every form of containment solution. This includes economical and efficient circumferential prestressing reinforcement concrete tank walls and secondary containment. Precast Concrete technology can offer a number of unique benefits:

- Flexible site erection process
- Drastically reduced concrete forming at site
- More consistent finished concrete
- Faster commissioning
- Negligible maintenance costs
- Full containment qualification to NFPA and API
- Less limitation of installation locations

AT&V and Precast Concrete Technology can provide solutions to install LNG/LPG storage in the most stringent of regulatory areas. Designs can be modified to include typhoon/hurricane wave resistance, fire & missile impacts, and heavily regulated spill containment.

Contact AT&V today with your toughest installation demands and we will find a storage solution to meet your needs.



AT&V can provide Single, Double, or Full Containment storage solutions.

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LNG/LPG Presentation

AT&V/CHI Inc. Partnership

Design Experience:

- Permitting, Siting and Regulatory Compliance
- FEED Studies and Process Simulation
- Plant Automation and Control Systems
- Plant Commissioning and Operation

Equipment Experience:

- Nitrogen and Mixed Refrigerant Liquefaction
- Pre-Treatment, Boil-Off & Regasification Systems
- Modular & Skid Mounted Systems
- LNG Transport Loading/Unloading Systems
- Fractionation/Purification Options In-House
- MCC/Switchgear Design/Installation
- Seismic Isolation Solutions

LNG/LPG Presentation

International Labor Sourcing

- AT&V Draws Experienced and Skilled Labor for their International Projects from an Established, Trusted Talent Pool
- AT&V Offers Local Education & Training Opportunities
- AT&V's Goal is for their International Projects to Receive the same project safety, quality and schedule performance as all AT&V projects.

AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

AT&V Turnkey Terminals

AT&V's turnkey experience involves all disciplines of a hydrocarbon terminal, from financing to commissioning. AT&V has been delivering balance of plant terminals since the mid 1980s and has performed the work inside and outside the United States. Projects have ranged from LNG storage in Brazil to LPG storage in Africa.

AT&V's turnkey hydrocarbon terminals also incorporate the DPC function of the project, supporting the following:

- Assistance with permitting
- Full in-house design capabilities
- Liability management of targets
- Finance & financial analysis
- In-house equipment fabrication
- Patented and award winning technology
- Self-performed major construction
- Industry leading schedule performance
- Exemplary worldwide safety record
- Full commissioning and operations service

If you would like to know more about AT&V's turnkey terminals and services, please visit our website for a full review.

The family of AT&V companies, along with proven subcontractors, has given AT&V the ability to deliver turnkey LNG/LPG facilities at a variety of locations.

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AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

AT&V for Value

Over the last 40 years, AT&V customers helped identify the **Value Driven Project**. This passion to service customers has helped AT&V lead the industry in safety, technology, and schedules.

Seven times AT&V has posted a **zero (0) TRIR in safety** for the entire year, for all divisions. AT&V has done it back-to-back years and continues to significantly outpace the industry with safety performance.

AT&V has pioneered technology and emission reduction systems, safety systems, NDE, welding processes, and erection techniques. AT&V continues these advancements in technology and today offers the industry **the best value** in flat bottom API 620 Q and R tanks available.

Schedules are derived from AT&V's in-house capacity and automation. The empowerment of our staff with the best current systems, as well as pioneering new systems that lead the industry, has helped us produce **schedules that far exceed the performance of the industry** norms. The picture to the far right is a double-wall 500,000 gallon cryogenic API-620/625 tank that was field erected and tested in only eight weeks.

AT&V is leading the industry in safety, technology, and schedules.

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AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

Customer Service & AT&V

AT&V's Directors recognize the emerging LNG/LPG markets around the world. Therefore, AT&V has made a commitment to advance our capacity and further our industry leading technology in cryogenic and refrigerated storage applications. AT&V's products include flat bottom storage, as well as shop built vessels of large scale class. In addition, AT&V also offers the following:

- Industry leading project safety and schedules
- In-house Shop and Field storage solutions
- Continuation of AT&V's LNG/LPG technology advancement
- Single, Double, and Full containment designs
- Teaming arrangements for AT&V's services
- Turnkey experience
- Project financing and finance support
- Permit and FEED Study support

AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

U.S. and Non-U.S. Project Overview

EPC of seven (7) tank terminal, 400,000 barrels with civil, mechanical, and paint – Dallas, TX, USA

EPC of (2) – 233' diameter API-650 pressurized double bottom tanks for VCM storage – Corpus Christi, TX, USA

Engineering, procurement, and fabrication of API-620 Q LNG tank with submerged pumps and process support – Paulina, Brazil

Design and construction of (1) – 75' diameter ASME Section VIII Div. I sphere, PWHT – Freeport, TX, USA

Engineering, procurement, fabrication and field erection of API-620 R LPG tank with valves, vents, instrumentation and process support – Chesapeake, VA, U.S.A.

EPC for Jet Fuel including storage tanks and systems for U.S.A. Defense Department – Tonopah, NV, U.S.A.

The AT&V team will bring a world of experience to meet your objectives in an efficient, timely and professional manner.

AMERICAN TANK & VESSEL, Inc.

LNG/LPG Presentation

U.S. and Non-U.S. Project Overview

Design Construction of (30) – 100,000 barrel API-650 tanks with internal floating roofs and painting – Houston, TX USA

Engineering, procurement, and fabrication of ASME Section VIII Div. II reactor, 28’ x 260’ tall – Santos, Brazil

EPC for 110’ tall API-620 propane refrigerated service tank, foundation, insulation – Equatorial Guinea, West Africa

Engineering and Construction of (4) – 284’ X 56’ tall external floating roof tanks – Saudi Arabia

EPC of 70,000 cubic meter terminal with fire systems, OWS, and MCC, with inbound and outbound pipeline systems – APD, Ghana.

Design and construction of (1) – 770,000 barrel API-650 tank with internal floating roof – Tulsa, OK, USA

AT&V – your partner for safety, quality, price and delivery – provides new or repair services for tank, foundation, sub-grade, pipe runs, structural work, electrical and instrumentation, cathodic protection and leak detection.

www.at-v.com

U.S. and Non-U.S. Project Overview

A World of Products Serving the World

AT&V has executed and completed over 2,500 projects in the United States, as well as in many foreign countries. Projects range in size from a single tank to an entire terminal or pipeline system.

Below and on the following pages is a short list of some completed projects reflecting AT&V's comprehensive capabilities.

EPC for special chemical terminal – (58) various field erected tanks – carbon, stainless, IFR's and pressurized. – New Orleans, LA, USA

EPC for Clean Products Terminal for 90,000 Cubic Meters of storage, with in-bound pipeline system and truck racks – Tema, Ghana.

EPC for (10) – API-650 tanks from 40' diameter to 110' diameter – Multan, Pakistan

AMERICAN TANK & VESSEL, Inc.

Industry Leading Schedules

2 Million BBL Months Ahead of Schedule

Completed 3 Months Ahead of Schedule

Foundations, Tanks & Painting 5 Months

(40) Tanks in 24 Weeks (No Overtime)

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AMERICAN TANK & VESSEL, Inc.

Back-to-Back Years of Zero TRIR

84’ Diameter Sphere

(6) 310’ Dia. EFR API-650 Tanks

Turnkey Terminal Projects

LPG/LNG Storage & Facilities

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AMERICAN TANK & VESSEL, Inc.

Completed Over 3,500 Projects

Refinery Projects

Chemical Storage Tanks

770,000 BBL Crude Tanks

Clean Product Tanks

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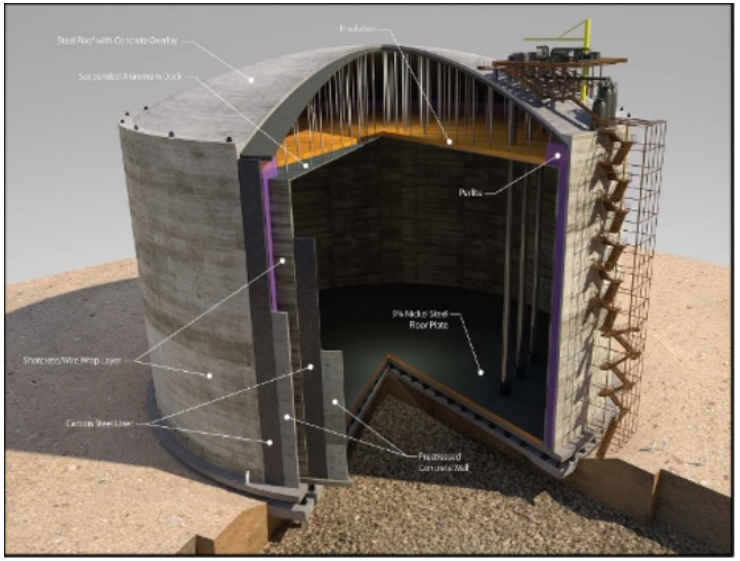
AT&V

Summary of AT&V Team

- 60 Years of LNG Storage Experience
- 20 Years of R&D to Advance Hydrocarbon Storage Solutions
- Completion of Over 4,000 Projects
- Industry's Best Schedules
- Global Experience since 1994
- Recovery Service to the Caribbean
- 7 Years of Company Wide Zero (0) TRIRs
- Economic Value/Cost Controls



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