



ANNUAL REVIEW

2020

Annual Review of the UK's bulk liquid storage sector



TSA is an industry based organisation whose members are engaged in the storage of bulk liquids and the provision of products and services to the sector.

THE VOICE OF THE BULK LIQUID STORAGE SECTOR



CONTENTS

A MESSAGE FROM OUR PRESIDENT	4
ABOUT US	6
TSA FUTURE VISION	10
CONTRIBUTION TO THE UK ECONOMY	12
TERMINAL STATISTICS	13
PROCESS SAFETY	15
OCCUPATIONAL HEALTH AND SAFETY	17
JOIN US	19

A MESSAGE FROM OUR PRESIDENT

I am delighted to write once again the introduction to the TSA Annual Review, now in its fifth year of publication. The Annual Review is an incredibly valuable source of data and information on the bulk liquid storage sector in the UK. Included are data on terminals, process safety, occupational health and safety as well as on the industry's contribution to the UK economy.

This year's spotlight presents an overview of how the sector will have a key role to play in the energy transition and in supporting the achievement of the UK's decarbonisation targets. But above all, it highlights the powerful combination of a sector fit and ready for the future and a collaborative approach with government and other partners – all working together to seize opportunities and enable solutions for change. Our sector is at the leading edge of the innovation and evolution that will be necessary to succeed going forward. For that reason, the Tank Storage Association has recently published its future vision for the UK's bulk liquid storage sector, building awareness and consciousness of the vast and strategic advantages of the industry and associated logistics in unlocking future potential.

Looking ahead, we have also set out ambitious plans to continue to promote best safety practices and good governance in our sector. Through our Safety Committee, we are developing a suite of common meaningful indicators that cover receipt, storage, processing and export of bulk liquids. Our Council has also committed to signing the COMAH Strategic Forum charter for good safety leadership, reaffirming our commitment to the original Principles of Process Safety Leadership. More recently, as much as any other sector, bulk liquid storage has also felt the impact of the coronavirus (COVID-19). During this challenging time, our sector continues to work tirelessly to keep critical infrastructure operating.

Paul Denmead, June 2020



PAUL DENMEAD

Director, Terminal Operations UK
World Fuel Services Europe Ltd



THE BOARD OF DIRECTORS

The Tank Storage Association is the voice of the bulk liquid storage sector. We represent the interests of over 60 member companies engaged in the storage of bulk liquids and the provision of products and services to the bulk liquid storage sector. Through our work, and collective voice, we champion the needs of our members in safety, health, environmental and technical matters.



PAUL DENMEAD

TSA President

Director, Terminal Operations UK
World Fuel Services Europe Ltd



ADRIAN JACKSON

TSA Vice President

Chief Executive
Oil and Pipelines Agency



MARTYN LYONS

TSA Director

Chief Executive
Inter Terminals



PETER DAVIDSON

TSA Executive Director

Tank Storage Association

MEMBERS

Tank Storage Association's members provide and support an essential interface between sea, road, rail and pipeline logistics for a diverse range of essential products, including transport and heating fuels, chemicals, animal feed and foodstuffs. In the process, they are responsible for the direct employment of around 4,000 highly trained, specialised people. The association also takes a leading role in safety, encouraging cross-sector cooperation and knowledge transfer via a number of fora including the COMAH Strategic Forum and Process Safety Forum.



ASSOCIATE MEMBERS

TSA plays a leading role in several industry, regulatory and Government forums and works to ensure that members' interests are at the top of the agenda. We tackle a wide scope of issues relevant to the bulk liquid storage sector and our committees are critical mechanisms for highlighting the most pressing matters facing businesses in our sector. Our Associate Members play an essential role in Technical, Safety, Health and Environmental matters, sharing and learning operational experience, and work with the association on a variety of sector specific issues.



ASSOCIATE MEMBERS (SUPPLIERS)

The Tank Storage Association is the voice of the bulk liquid storage sector to Government, Parliament, Regulatory Agencies and in the media. We provide a wide range of support and services for our membership, including technical guidance and standards, insights, comprehensive monitoring, weekly updates and a quarterly digital magazine. Our Associate Members (Suppliers) make a valued contribution to our Technical, Safety, Health and Environmental work, by sharing learnings, experience, new products, innovation, services and contributing to the development of new guidance where appropriate.



Our aim is to build a strong community of businesses engaged in the storage of bulk liquids, terminal and port operations and those providing equipment and services to the sector.

A large, light blue industrial storage tank dominates the right side of the image. A worker in a blue uniform and yellow hard hat is visible on a walkway at the top of the tank, which is marked with the number '4'. To the left, another similar tank is partially visible, marked with the number '6'. The sky is a clear, deep blue.

Through our work and collective voice, we champion the needs of our members in safety, health, environmental and technical matters. TSA facilitates dialogue in key policy-making forums producing solutions on issues of interest to the sector.

TSA is a founding member of several industry safety groups, including the COMAH Strategic Forum which helps to set the UK's regulatory strategy.

WE SHAPE PRIORITIES AND CONNECT INDUSTRY

TSA is tailored to serve its membership so that member organisations can have direct input on the issues most important to them. TSA's membership enables effective and dynamic industry-wide interaction, driving valuable connections across the sector in the UK and abroad.

FUTURE VISION

The Tank Storage Association has recently published a brand-new report, *'Enabling the energy transition – The role of the bulk liquid storage sector'* (www.tankstorage.org.uk/publications), exploring the role and potential of the UK's bulk liquid storage sector, and associated logistics, in the energy transition and in supporting the achievement of the UK's decarbonisation targets.

The UK's bulk liquid storage sector supports growth and prosperity by moving, storing and blending the modern products, feeds and chemicals that are integral to our daily lives. Similarly, the sector will have a key role to play in unlocking future opportunities. Looking ahead, reducing emissions will require partnership, significant investment and coordinated efforts by government, supply chains, businesses, consumers and other stakeholders alike. Meeting the UK's future ambitions will also require a broad mix of solutions. As an essential partner in the energy transition, the report emphasises the sector's commitment to the innovation and evolution that will be necessary to succeed. It also identifies the barriers to be overcome and the opportunities that will ultimately unlock solutions for change.

The bulk liquid storage sector and associated supply chain are undoubtedly well positioned to meet challenges ahead and accommodate the wide range of alternative energy sources that may be needed in the future. From investing in latest technology and innovations, to employing highly trained, specialised personnel in order to meet ongoing safety and environmental standards, the industry is also capital intensive. In playing its part in helping the UK meet its targets, the sector is determined to up the ante. This will involve tackling uncertainty about the future of energy supply and that of a shifting future energy mix. It will also involve investment not only in infrastructure, but on innovation and knowledge as critical inputs for change. For that reason, the TSA's future vision, along with stressing the importance of collaboration with key partners and the UK government in unlocking the sector's potential, outlines a number of recommendations. As we move towards the next phase of the transition, the Tank Storage Association is clear in its call to government to capitalise on the knowledge, innovation and evolutionary capabilities of UK's bulk liquid storage sector and associated logistics.





KEY RECOMMENDATIONS



Working together, in partnership with industry, to seize opportunities for a responsive, flexible and robust bulk liquid storage sector



Ensuring the energy transition advances in parallel with required changes in bulk liquid infrastructure by safeguarding the benefits of a safe and resilient bulk liquid supply sector and associated supply chain



Setting clearly defined transition paths and realistic timelines to enable a stable landscape for long-term investment and avoid delay caused by the lack of new transitional national infrastructure



Ensuring that policies are coherent and supportive of the broad range of solutions necessary to succeed



Empowering industry by facilitating dialogue, cooperation and knowledge transfer in the area of safety, in the context of alternative energy solutions

CONTRIBUTION TO THE UK ECONOMY

REVENUE IN 2019

+ **£3bn**

EMPLOYEES IN THE UK AND ROI

INCLUDING LONG TERM CONTRACTORS

+ **3,790**

PLANNED INVESTMENT IN THE NEXT 5 YEARS

IN THE UK AND ROI

+ **£607m**

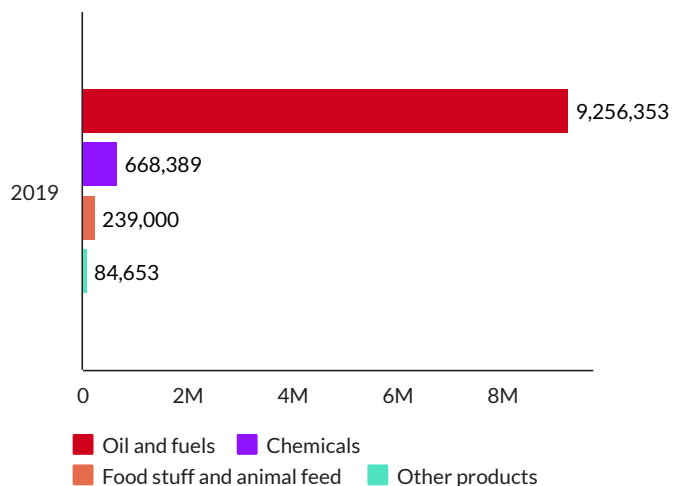
The bulk liquid storage sector in the UK is diverse, providing a critical component in the supply chain for many industries from transport fuels to animal feeds.

Our members operate 293 terminals in the UK and Republic of Ireland, providing 10,248,395 m³ of storage capacity.

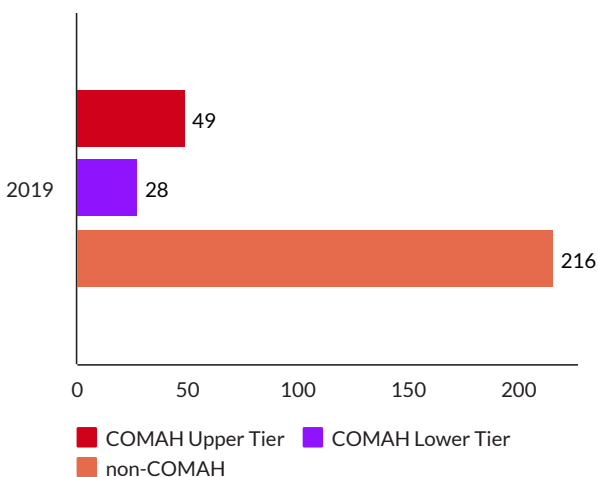


TERMINAL STATISTICS

STORAGE CAPACITY (m³)



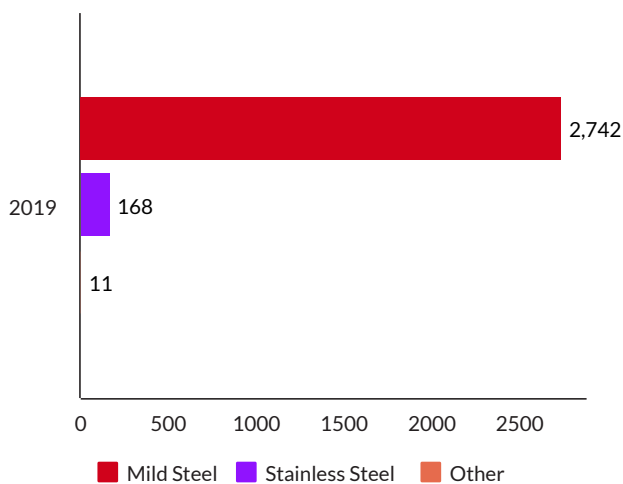
NUMBER OF TERMINALS



OVERVIEW

Our members operate a variety of terminals across the UK and Republic of Ireland storing both hazardous and non-hazardous liquids. Around twenty-two of these terminals are designated by HM Government as Critical National Infrastructure (CNI). Depending upon the type and volume of products stored, the terminal may be regulated under the Control of Major Accident Hazards (COMAH) Regulations, and designated as either upper or lower tier. Equally, many of our members are regulated by the environment agencies and hold Environmental Permits.

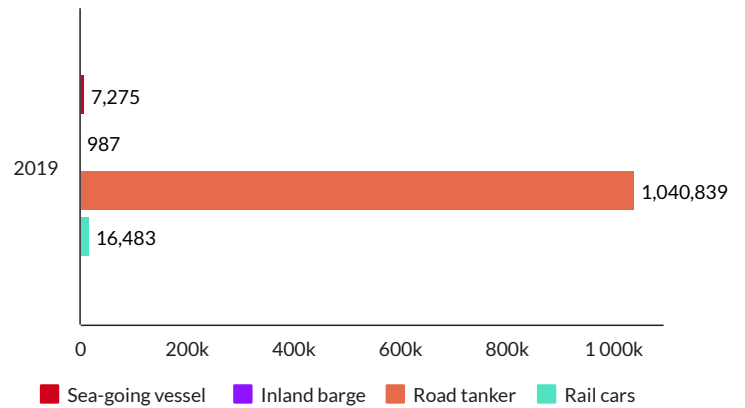
NUMBER OF STORAGE TANKS



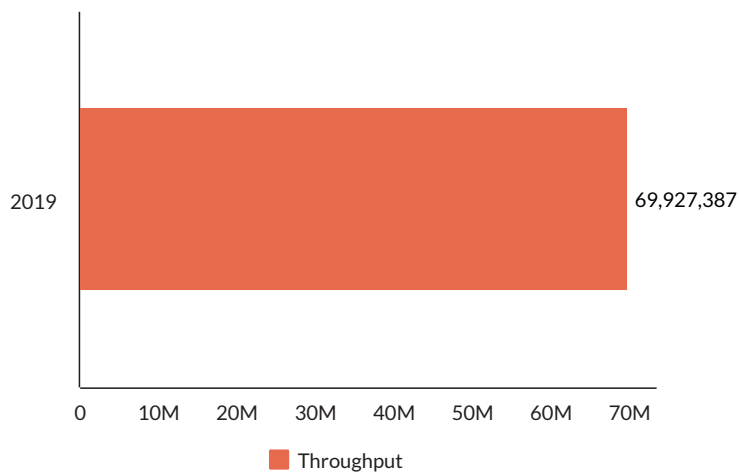
Movement of material into or out of terminals is either by seagoing vessel, inland barge, road tanker, rail tanker or pipeline.

Our members safely execute over a million movements each year. By far the greatest number of movements is carried out by road tanker. However, this is not representative of the volume of product moved by type - for example, there are far fewer movements by ship than road tanker, but the volume of product moved by ship is much higher.

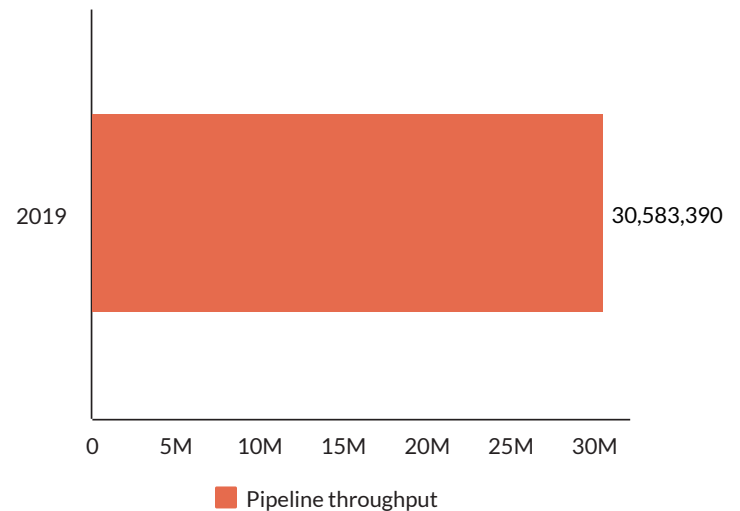
NUMBER OF MOVEMENTS



AGGREGATED THROUGHPUT (tonnes)



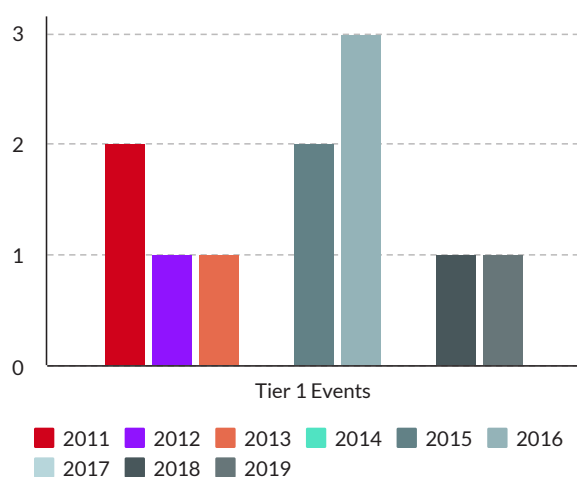
PIPELINE THROUGHPUT (m³)



PROCESS SAFETY

Our members are fully committed to the Process Safety Leadership Group Principles of Process Safety established following the Buncefield explosion and fires in 2005. These principles remain valid today and to reconfirm our commitment, we are supporting the COMAH Strategic Forum's *Commitment to Good Major Hazard Leadership*. Our dedicated Safety, Health and Environment committee works closely with our peers, other industry sectors and regulators to share knowledge and good practice relevant to safe operations. To monitor our performance and highlight potential emerging issues, we collate, share and discuss process safety data quarterly with our members. We use the API RP 754 standard for our process safety performance indicators.

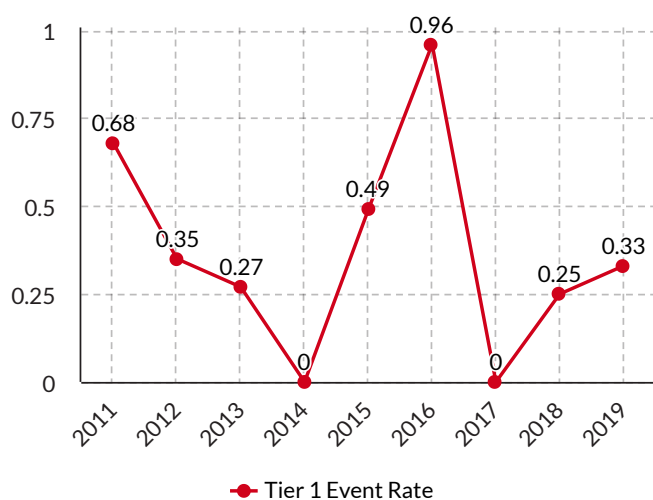
NUMBER OF TIER 1 EVENTS



Tier 1 events are significant losses of containment (relevant to the hazard of the product stored).

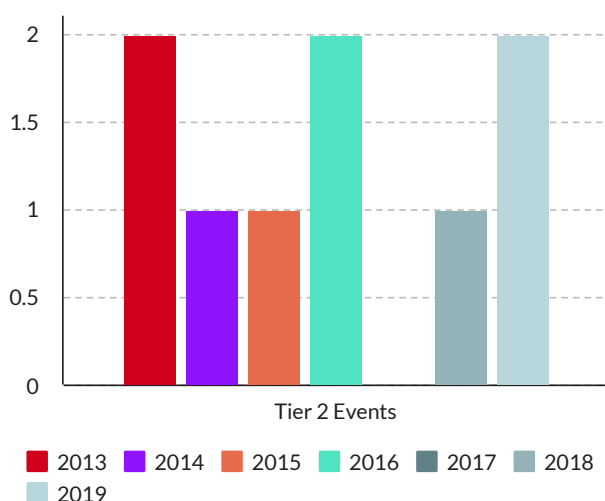
The number of Tier 1 events experienced by our members are very small, with one reported in 2019. The work that the TSA does with the UK regulator helps to ensure that we operate safely.

TIER 1 EVENT RATE (per million hours worked)

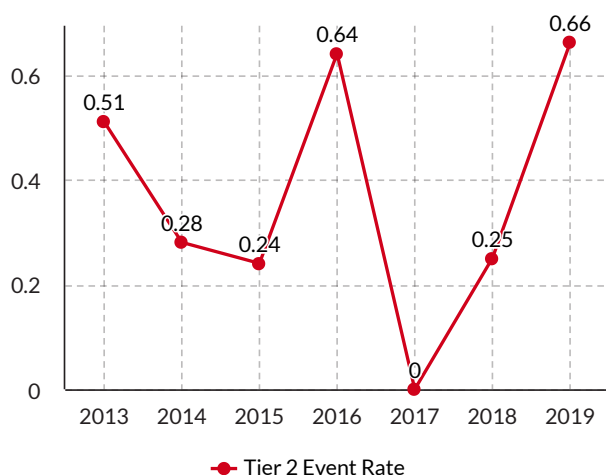


Tier 2 events are smaller losses of containment (relevant to the hazard of the product stored). The number of Tier 2 events experienced by our members is very small, and do not highlight any significant trends. Two were reported in 2019. Even though only one Tier 1 and only two Tier 2 events were reported in 2019, this does not mean we are complacent. Our members maintain an acute focus on ensuring and maintaining the safety of their people, the environment and their assets.

NUMBER OF TIER 2 EVENTS

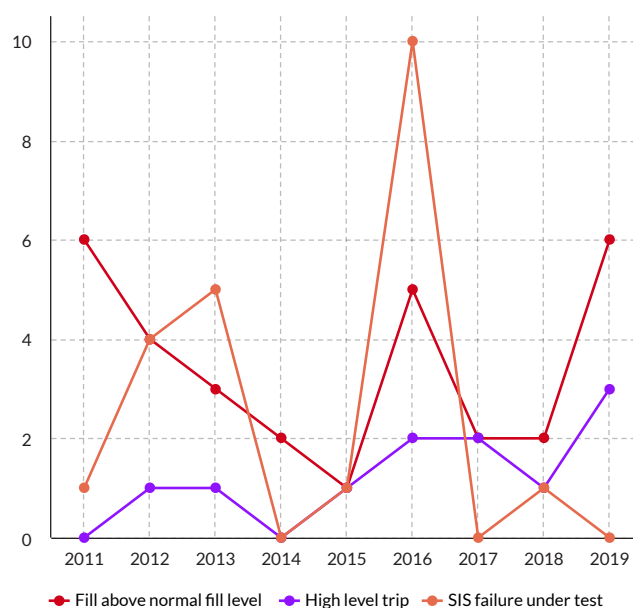


TIER 2 EVENT RATE (per million hours worked)



Tier 3 indicators (leading indicators) can be extremely useful in identifying areas of weakness before a more significant Tier 1 or Tier 2 event takes place. The TSA uses this information to determine if any further work is required in improving good practice or knowledge and skills.

TIER 3 LEADING INDICATORS



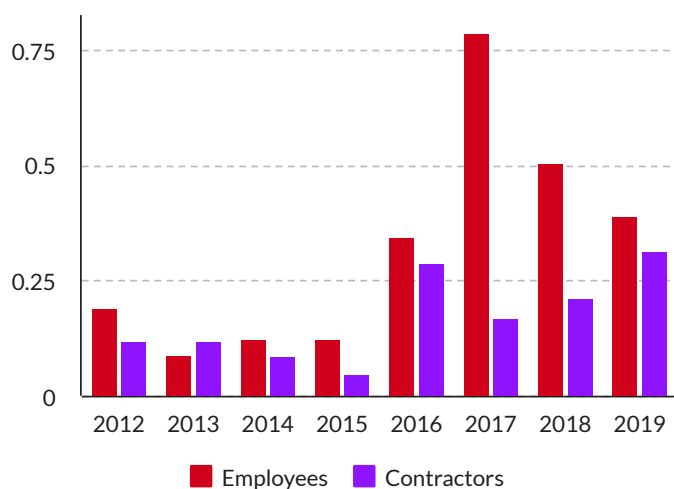
Throughout 2019, we have been sharing safety messages regarding the Tier 3 leading indicators in our quarterly statistics report to members. The TSA is also leading and contributing to several technical working groups in the Chemical and Downstream Oil Industries Forum (CDOIF) and Energy Institute (EI) which are producing guidance to assist in the design, management and maintenance of process facilities. Through our Safety Committee, we are also aiming to develop a suite of terminal specific indicators that cover receipt, storage, processing and export of bulk liquids.

OCCUPATIONAL HEALTH & SAFETY

Our members inform the UK regulator in accordance with the requirements of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR).

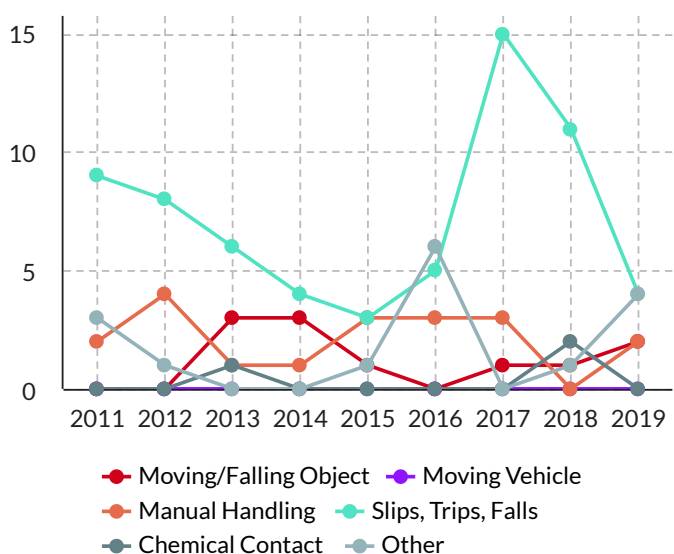
The Tank Storage Association collates and shares this information with its membership on a quarterly basis.

RIDDOR LTI RATE (per 100,000 hours worked)



Lost Time Injuries (LTI) are those where an employee or contractor has been away from work due to a workplace injury, for more than seven days. This is normalised per 100,000 hours worked to give an LTI Rate.

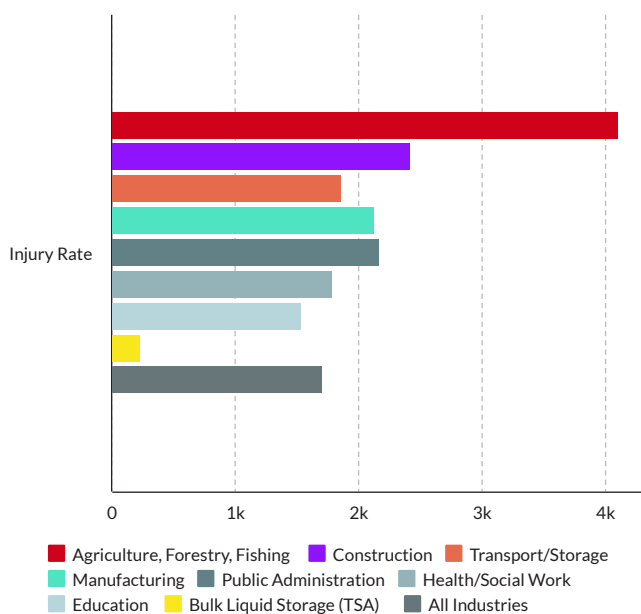
LTA CAUSE ANALYSIS



Lost Time Accident (LTA) causes examine the nature of Lost Time Injuries.

The tank storage sector continued to maintain very high standards of occupational safety during 2019. It remains one of the safest industries in the UK with proportionally fewer injuries than almost all other sectors.

WORKPLACE INJURY RATE (per 100,000 workers)



Source: HSE RIDDOR Statistics.

See www.hse.gov.uk/statistics/industry/index.htm



JOIN US

TSA is the voice of the bulk liquid storage sector to Government, Parliament, Regulatory Agencies and in the media. We tackle a wide scope of issues relevant to the bulk liquid storage sector and our committees are critical mechanisms for highlighting the most pressing matters facing businesses in our sector. We provide a wide range of support and services for our membership, including technical guidance and standards, insights, comprehensive monitoring and weekly updates. We offer three types of membership: **Full Membership**, **Associate Membership** and **Associate Membership (Supplier)**.

TSA plays a leading role in several industry, regulatory and Government forums and works to ensure that members' interests are at the top of the agenda. We champion the UK's bulk liquid storage sector and its role in supporting growth and prosperity.

Join us. Choose your membership at
www.tankstorage.org.uk/join-us





ANNUAL REVIEW

2020

Annual Review of the UK's bulk liquid storage sector

Contact us

www.tankstorage.org.uk
T. +44 (0)1462 488232
info@tankstorage.org.uk

Tank Storage Association
Devonshire Business Centre, Works Road
Letchworth Garden City, Herts. SG6 1GJ
United Kingdom

