



ANNUAL REVIEW

2023

Annual review of the UK's bulk storage and energy
infrastructure 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 STORAGE AND ENERGY INFRASTRUCTURE SECTOR 



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A MESSAGE FROM OUR PRESIDENT

Welcome to the eighth edition of the TSA Annual Review.

The Annual Review serves as a valuable resource for the bulk storage and energy infrastructure sector. It provides useful insights and data on terminals, process safety, occupational health and safety as well as how our industry contributes to the UK economy. This year's spotlight presents an overview of the sector's vital contribution to energy resilience and security of supply, as well as its important role in supporting the energy transition and the achievement of the UK's challenging carbon reduction ambitions. Today, our sector is investing, innovating, and leading the way to seize the opportunities of tomorrow. As our industry evolves, skills and workforce progression will play a central role. To that end, we have recently launched a new resource hub dedicated to careers and apprenticeships in the bulk storage and energy infrastructure industry. The hub includes inspirational videos from industry's talent, informative resources to explain apprenticeships and careers in the sector, up-to-date opportunities and much more. People are our greatest strength and, as we look to the development of our sector, we are passionate about bringing talent on board to grow their careers with us and to shape the future. There are endless opportunities in the terminals industry, whichever roles our teams work in. In putting skills and workforce progression at the heart of our future agenda, we have also recently established a Skills Committee. This new forum will lead the discussion for how we can work together to signpost the opportunities in our sector to more people, and work to ensure that we equip significantly more people with the skills and pathways they need to thrive in the future. It is my strong belief that genuine collaboration is the key to success, and it is only by working in partnership together that we can ensure our workforce is fully equipped with the skills, toolkits and knowledge to support the careers they need for tomorrow. I hope you enjoy reading our 2023 Annual Review of the bulk storage and energy infrastructure sector, and I'd like to express my sincere thanks to the companies and individuals who have supported its production and made its publication possible.



WILMA KELLY

HSE Director

Certas Energy



THE BOARD OF DIRECTORS

The Tank Storage Association is the voice of the bulk storage and energy infrastructure sector. We represent the interests of over 70 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.



WILMA KELLY

TSA President
HSE Director
Certas Energy



ARUN SRISKANDA

TSA Vice President
Managing Director
Oikos Storage



MARTYN LYONS

TSA Director
Independent Director



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 over 8,500 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.



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

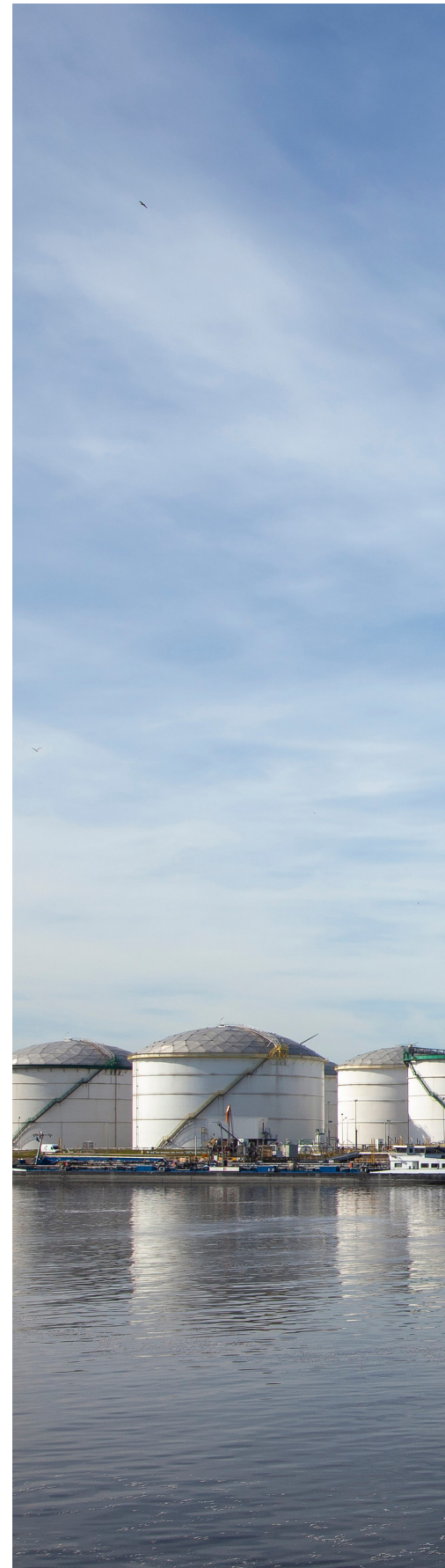
TSA is a founding member of several industry safety groups, including the COMAH Strategic Forum which helps to set the UK's regulatory strategy. It also adheres to an ESG Charter affirming the sector's shared commitment to environmental, social and governance principles.

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.

THE ENERGY TRANSITION

In March, the Department for Energy Security and Net Zero (DESNZ) published its policy paper, titled 'Powering Up Britain', setting out government's plans to enhance Great Britain's energy security, seize the economic opportunities of the transition to climate neutrality, and deliver on its net zero commitments. New measures to tackle UK emissions include the introduction of a zero-emission vehicle mandate which would require that from 2024 an increasing percentage of manufacturers' new car and van sales are zero emission, and a new Green Finance Strategy. The government has also indicated its commitment to carbon capture, utilisation and storage (CCUS), announcing that eight projects have been chosen to proceed to the next stage of support negotiations. It further announced that fifteen hydrogen projects have progressed to the next application round for funding under the £240m Net Zero Hydrogen Fund. A revised set of energy national policy statements for consultation, covering overarching energy, renewables, electricity networks, gas generation, and pipelines, have been published. The government has further issued its response to the recommendations made in the Independent Review of Net Zero, led by former Energy Minister Chris Skidmore MP, expressing agreement that decisive action is needed to seize the growth opportunity that net zero presents in the 21st century. The Independent Review of Net Zero, published earlier in the year, highlighted the need for a "long-term, stable investment plan" in the context of a pro-grow, pro-business energy transition. The tank storage sector has been clear that a long-term and stable policy background is essential to engender investor confidence. This approach will avoid delays caused by the lack of transitional infrastructure and provide the resilience and security of supply needed. The tank storage industry is an essential part of the UK's energy infrastructure, providing resilient, innovative and flexible solutions to the energy, industrial, transport and defence sectors. The industry has a key role to play in the energy transition, in creating the necessary infrastructure flexibility to manage change in support of the UK's net zero goals as well as in providing the resilience and security of supply required for existing and future energy carriers. Terminals are also an essential part of global infrastructure networks, ensuring that bulk liquids, from transport and heating fuels, chemicals, animal feed and foodstuffs, are supplied when they are needed in the quantities required. As industry changes and the breadth of products and services provided by terminals evolve, it stands ready to work with the government and other stakeholders to deliver on future opportunities.





The bulk storage and energy infrastructure sector plays a vital role in providing services that are critical to the UK consumer.



Many of the strategic terminals in the UK, around 22, are designated by Government as Critical National Infrastructure.



Storage capacity also includes strategic reserves held for emergencies and supply disruptions.



Liquid storage terminals improve the flexibility of the entire supply chain and its ability to respond to market fluctuations by helping to balance out supply and demand.



The industry has a key role to play in the energy transition and in creating the necessary infrastructure flexibility to manage change in support of the UK's net zero goals.

CONTRIBUTION TO THE UK ECONOMY

REVENUE IN 2022

+ **£3.6bn**

EMPLOYEES IN THE UK AND ROI

INCLUDING LONG TERM CONTRACTORS

+ **8,540**

PLANNED INVESTMENT IN THE NEXT 5 YEARS

IN THE UK AND ROI

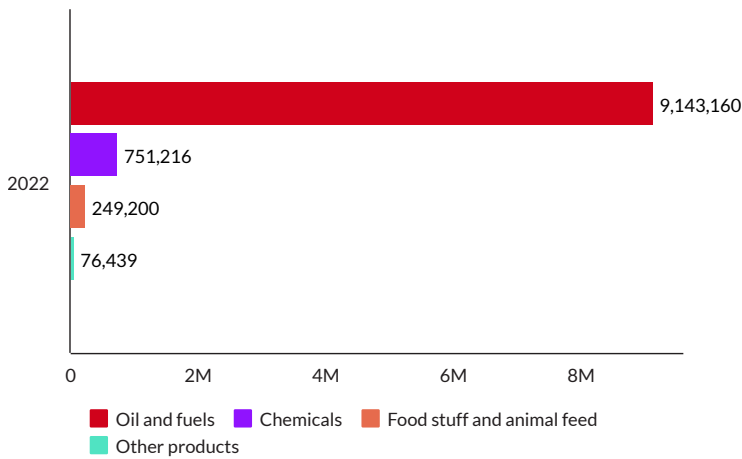
+ **£732m**

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 309 terminals in the UK and Republic of Ireland, providing 10,220,015 m³ of storage capacity.

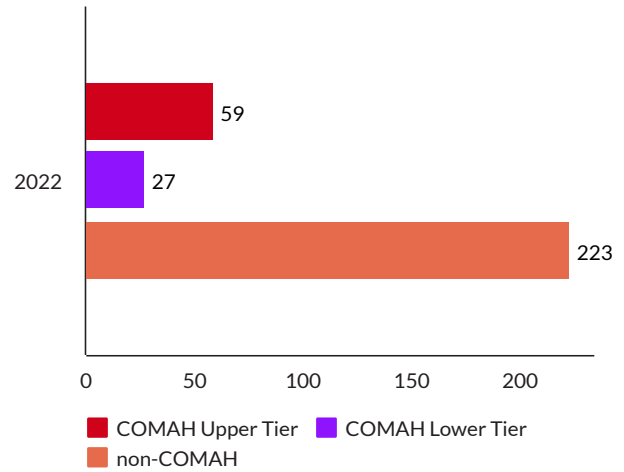


TERMINAL STATISTICS

STORAGE CAPACITY (m³)



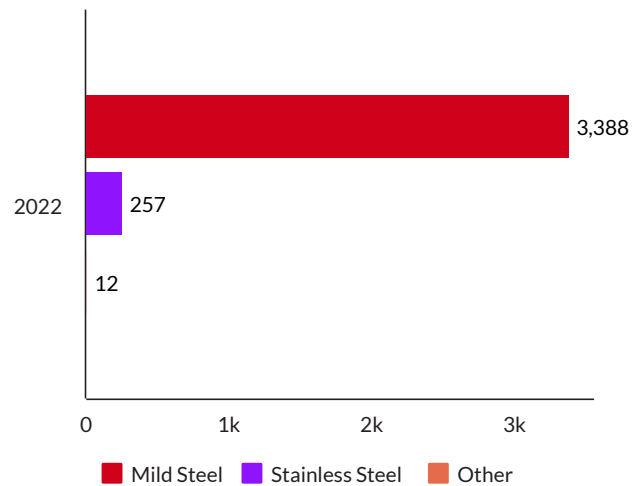
NUMBER OF TERMINALS



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.

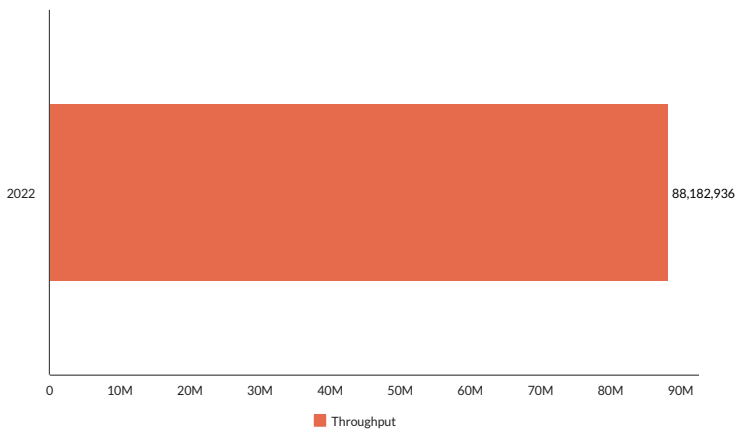
NUMBER OF STORAGE TANKS



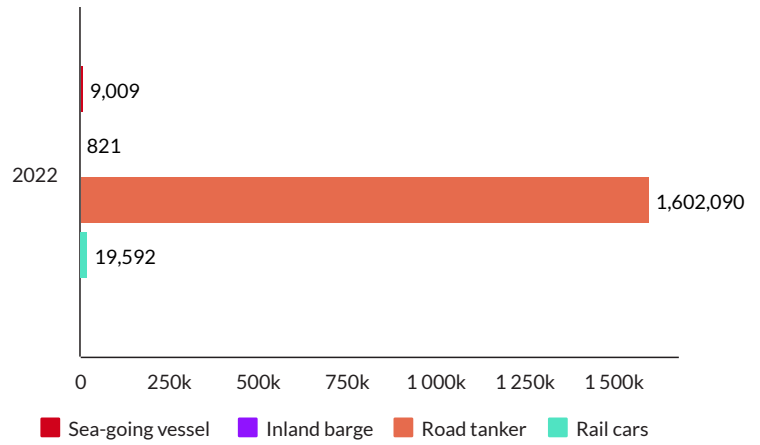
Movement of material into or out of terminals is either by seagoing vessel, inland barge, road tanker, rail tanker or pipeline.

Our members safely execute well 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.

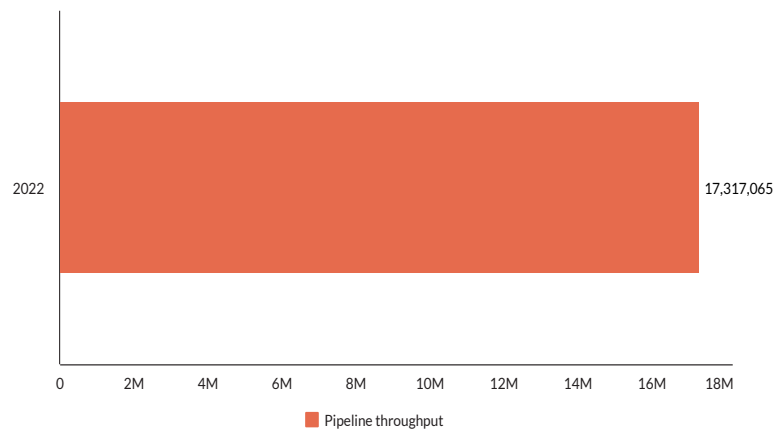
AGGREGATED THROUGHPUT (tonnes)



NUMBER OF MOVEMENTS



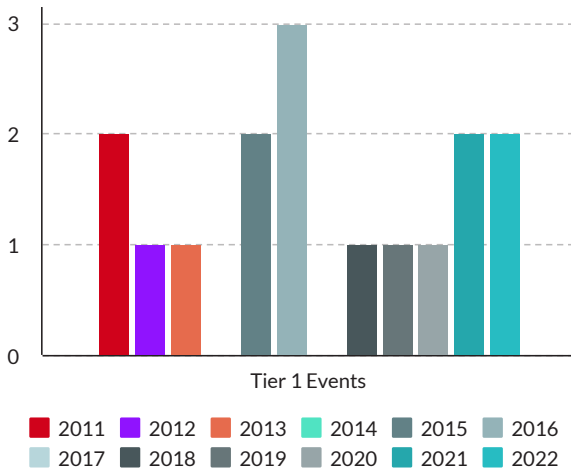
PIPELINE THROUGHPUT (m³)



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 the Tank Storage Association continues to chair the Process Safety Leadership Working Group of the COMAH Strategic Forum. 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.

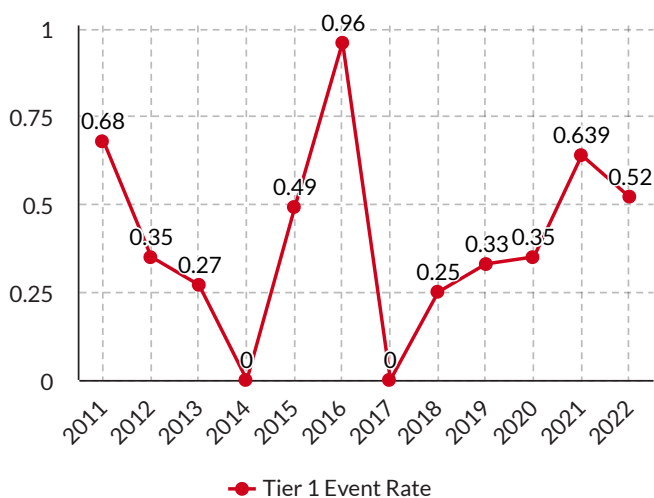
NUMBER OF TIER 1 EVENTS



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

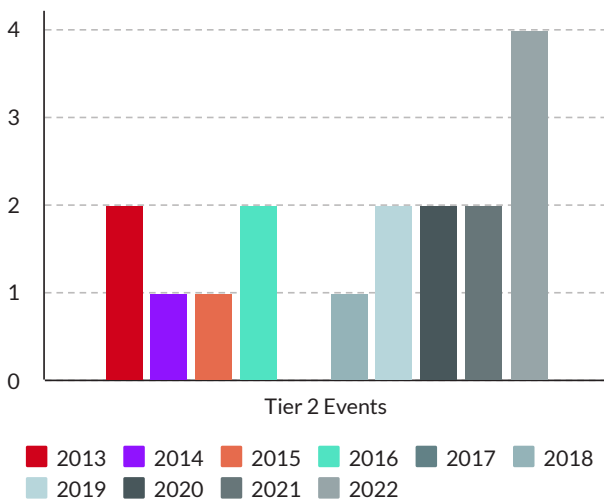
The number of Tier 1 events experienced by our members are very small, with two reported in 2022. The work that the TSA does with the UK regulator helps to ensure that we operate safely.

TIER 1 EVENT RATE (per million hours worked)

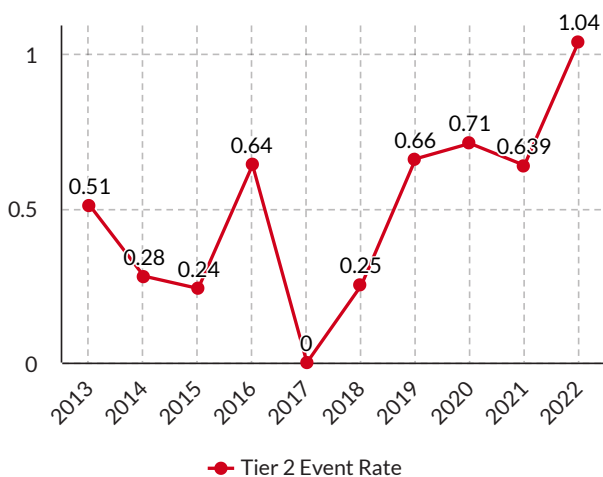


Tier 2 events are smaller losses of containment (relevant to the hazard of the product stored). Even though only two Tier 1 and four Tier 2 events were reported in 2022, this does not mean we are complacent. Through our *Significant Indicators* programme, we collect detailed data on individual barrier failures that cover receipt, storage, processing and export of bulk liquids, highlighting where we need to focus our efforts in the future.

NUMBER OF TIER 2 EVENTS

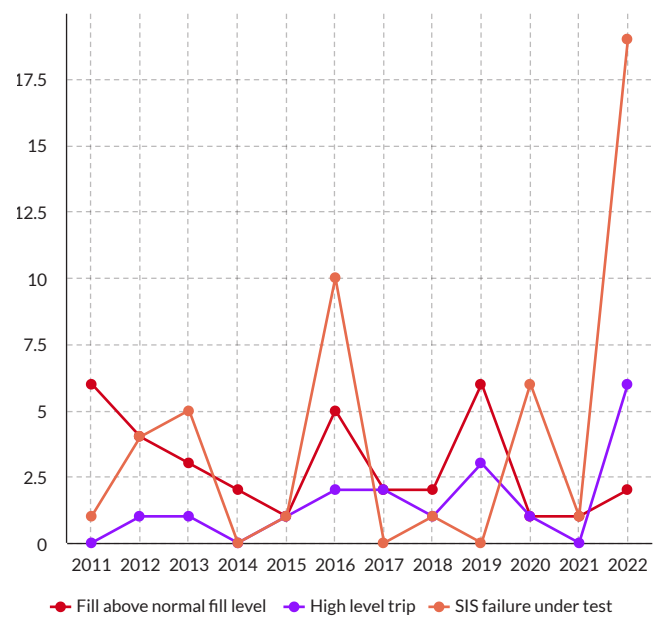


TIER 2 EVENT RATE (per million hours worked)



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 2022, 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, risk assessment and maintenance of process facilities.

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).

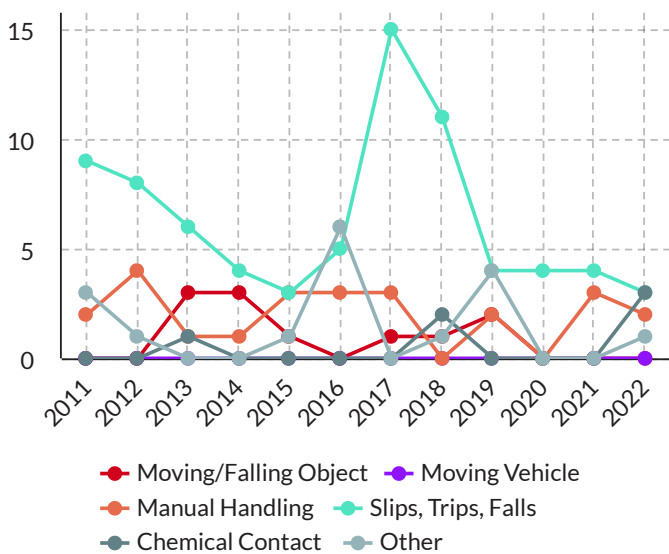
The Tank Storage Association collates and shares this information with its membership on a quarterly basis.

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.

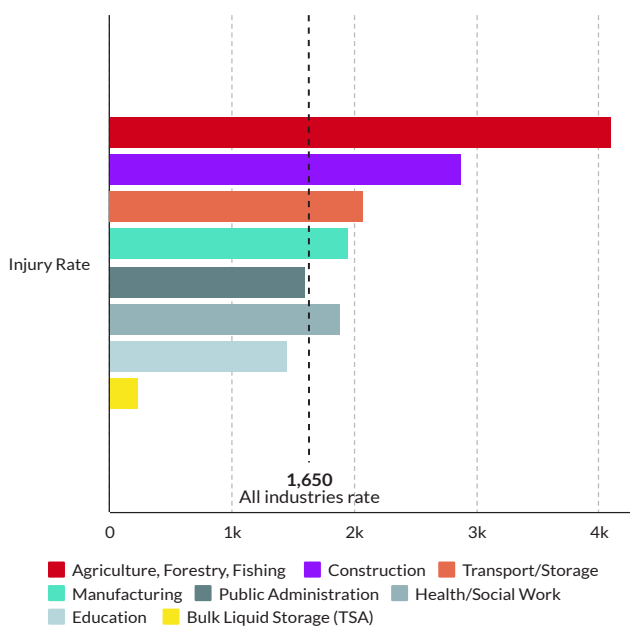
LTA CAUSE ANALYSIS



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 2022. 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 <https://www.hse.gov.uk/statistics/>



JOIN US

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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 storage and energy infrastructure sector and its role in supporting growth and prosperity.

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



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