



The LASTFIRE group has become the leading international forum related to developing best practice guidance on all aspects of Storage Tank Fire Hazard Management.

The Group is keen to expand membership and so widen the networking and research aspects of our work.

The attached document outlines the scope and practices of the Group. Over recent years we have carried out a number of significant research projects thanks to group funding through the membership fee. The results have had a significant effect on our understanding of critical issues such as boilovers, vapour suppression and foam performance testing.

On behalf of the whole Group we, as the Executive Committee, would request that you consider joining the Group to have influence on and benefit from our future work.

If you need any further information on the work of the Group or the membership structure, please contact the Project Coordinator on [info@lastfire.org](mailto:info@lastfire.org).

We look forward to you being members of our network and helping to advance Storage Tank Fire Hazard Management knowledge.

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## International Oil and Petrochemical Forum

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*Developing best industry practice in Storage Tank  
Fire Hazard Management*



## What is LASTFIRE?

LASTFIRE - “Large Atmospheric Storage Tank Fires” - is a consortium of international oil companies and storage companies reviewing the risks associated with fires in storage tanks and developing best industry practice to mitigate the risks based on research, academic studies and experience.



## What is the Objective?

To continue its role as the established recognised international oil and petrochemical industry forum on best practices of Fire Hazard Management of Storage Tanks.

Member companies can benefit from

- Membership of and influence within an internationally recognised industry body specifically related to Storage Tank Fires
- Networking with fellow professionals
- Immediate access to latest incident databases, risk reduction practices and guidance notes
- Access and influence on practical research work
- Benchmarking with other relevant organisations
- Knowledge sharing in the form of webinars, seminars and workshops.

## How Does it Work?

Representatives from each operating member company make up a Steering Panel. At regular meetings the Panel make decisions on research topics and conduct reviews of deliverable updates. These decisions and reviews are then put into practice and distributed to the rest of the members.

Suppliers are not allowed to join the steering panel and so there is no commercial influence whatsoever on the decisions made.

## Summary of Membership Options

- Tier 1 membership: Tank operators, 3 x nominated Steering Panel Delegates,
- Tier 2 membership: Tank Operators, 2 x nominated Steering Panel Delegates,
- Tier 3 membership. Those organisations who are joint ventures/partners, subsidiaries or consortiums from Tier 1 or 2 member companies. 1 x member permitted at steering committee meetings, no vote)
- Tier 4 membership. Additional individuals from Tier 1, 2 or 3 members. No vote, 1 x steering committee member (non-voting) allowed
- Tier 5 membership. Not for profit Response Organisations responsible for tank fire fighting or related training. Attendance at open sessions only
- Tier 6 membership. Tank Fire Hazard Management related Supplier, including commercial response and training organisations. Attendance at open sessions only. Steering Committee attendance by specific invitation only.



## Who are the Current Members?

### Tank Operators

SHELL	QATAR PETROLEUM
SINOPEC	RELIANCE, INDIA
NESTE OIL	TOTAL
BP	TUPRAS
MOL	PETRONAS

### Associates

SOLBERG	UNIFED FIRE TEAM, EUROPOORT
SPM SWEDEN	FIREDOS

## Project History

The original LASTFIRE project, which was limited to open top floating roof tanks was completed in June 1997. The current LASTFIRE Update was started in 2003 following the recognition that there had been significant developments in risk reduction options and additional experience in tank fire response.

LASTFIRE has established itself as the recognised international industry forum related to storage tank fires. It now continues on an ongoing basis with continuous updates of deliverables, dissemination of knowledge and development of best practice guidance based on risk-based understanding.

## What are the LASTFIRE Deliverables?

- **An Incident Database** establishing, in a rigorous way, incident frequency statistics related to fires in open top floating roof storage tanks. This has been updated at regular intervals since the initial study.
- **A Risk Reduction Options (RRO)** document which discusses the various options available to an operator to reduce risk through both prevention and mitigation based not only on manufacturers data but also feedback from field experience of members. Again, this has been updated on a regular basis to include new technologies and operational experience.
- **A Risk Workbook** which allows an operator to develop site specific risk based FHM policies.
- **A Test Protocol** for the evaluation of a fire fighting foam and its performance related to the specific requirements of a storage tank fire.



- **Training material and practical workshops** developed by fire fighters for fire fighters, describing the strategies and tactics for responding to tank fires.



### Guidance Notes and Best Practice Recommendations

LASTFIRE develops best practice guidance based on testing and field experience. Typical subjects have included:

- Linear heat detection systems
- Boilover issues
- Foam Position Paper

### Test witnessing

As recognised experts in the field of storage tank fire hazard Management, the LASTFIRE Group, on an independent expert basis, witness performance based testing of systems and innovations.

### Typical Research Work

Previous concentration has been a focus on boilover studies with an aim to providing responders with better information on time to boilover, boilover consequences and fire fighting foam application strategies. Two member companies have shared theoretical models with the rest of the Group and the experimental data is being used for validation purposes.



New research proposals include research into improved protection methods for internal floating roof tanks and vapour measurements under geodesic domes. Research is also proposed to study bund fires, including understanding foam travel rates, foam application rates and a comparison of foams.

The LASTFIRE Group was requested to comment on the API/EI lightning study related to storage tanks.

### What are Group Member commitments?

- To provide data on their storage tank incidents
- To provide experience based input to the RRO
- To share any incident experience or other issues related to storage tank fires with the Group. All information presented within “closed” sessions is kept confidential within the Group
- To host meetings in rotation
- To encourage other companies to join the Group.



### **What happens at a LASTFIRE meeting?**

LASTFIRE meetings occur twice a year at international locations. They are usually split into two sessions – the first a “closed” meeting for Tier 1 to 4 members only, the second being open to invited guests and Tiers 5 and 6, for giving technical presentations on any issue directly relevant to storage tank Fire Hazard Management.

Examples of presentations include:-

- Commissioning of Major Incident Response Units at various tank farm and industrial complexes
- Incident response experiences
- Environmental aspects of foam application
- New standards in foam application
- Developments in incident detection systems
- Geodesic domes and effect on Fire Hazard Management
- Vapour measurements under internal floating roof tank domes.

All presentations are loaded on to the LASTFIRE website which is accessible to LASTFIRE members through a password system.

### **How do you Join and What is the Fee for LASTFIRE?**

Contact the LASTFIRE coordinator at [info@lastfire.org](mailto:info@lastfire.org) for full details of membership tiers and fees.

