

We would love to hear from you....

Please do contact Helen Conlin, Newsletter Editor at specialinterestgroups@icheme.org about contributing articles or providing feedback and comment on: Good practice, previous SIG events, outreach (e.g. support to Universities, other institutions), or anything else that you think our readers would find interesting.

Introduction

Welcome to the July 2022 edition of the S&LP SIG newsletter.

Please use specialinterestgroups@icheme.org to contact anyone associated with the S&LP SIG.

This issue includes articles on [Feedback from S&LP SIG Members](#), [University Process Safety Workshops](#), [Ageing Assets](#), [Hazards Conferences](#), [LPB](#), [MHC Process Safety Competence Project](#), [MHC Lessons Learned Project](#), [Lessons Learned Database \(LLD\)](#), [ChemEng Evolution](#), [EFCE](#), an [Incident Round-Up](#) and the [S&LP SIG Committee](#).

Feedback from S&LP SIG Members

We were delighted to receive several feedback items following the February 2022 Newsletter including:

- ❖ Provision of background material for the Major Hazards Committee (MHC) Process Safety Competence project
- ❖ Offer to write an article for a future Newsletter
- ❖ Supportive words for the 'Remembering Frank Lees' article and sharing of further memories

Thanks very much to those S&LP SIG members that provided the feedback, it is always welcomed and appreciated.

University Process Safety Workshops

The S&LP SIG collaborated with London South Bank, Queen Mary, and Brunel Universities to run a series of process safety workshops during

February /March 2022 for 137 students over three half day sessions.

Several students indicated a preference for face to face rather than online in their feedback forms, some further feedback from 2022 students:

'The activity at the end was very beneficial as we got a chance to experience how it would be working in an actual project during our work career.'

'The highlights were the earlier presentations & the HAZOP exercise'

'Great workshop!'

'I really enjoyed the friendly environment, like how we all worked together /communicated as a team. Everything we have said was taken into consideration. We put our minds together to fill the HAZOP sheet efficiently and in as much detail as we could. Also, listening to others present their findings for their nodes was very useful and insightful.'

'Extremely good workshop, very helpful and environmentally friendly. Thank you for allowing us to participate in this workshop.'

The workshop is divided into two half day sessions, which can be delivered in the same day or a week apart. For the 2022 workshops, the full group of 137 students attended the first session together and then the group split to attend two second sessions run a week apart.

The first session includes several short sessions on aspects of process safety delivered by S&LP volunteers, interspersed with snapshots of 'Careers' relating to process safety from industry

representatives. In the 'Career' snapshots, facilitators from industry share their own professional experiences and talk about their own learning journey and career opportunities. The process safety aspects covered in the first session include:

- ❖ Why is process safety important?
- ❖ Personal v/s process safety
- ❖ Inherent safety
- ❖ Loss prevention landscape
- ❖ Incident investigation

The second session largely comprises a HAZOP exercise run in smaller groups facilitated by S&LP volunteers.

The workshops have been running since approx. 2007 and are hugely appreciated by University staff and students.

We are pleased to welcome five more volunteers to support future Process Safety Workshop facilitation who have joined the team following the recent IChemE campaign.

We would welcome interest from other academic institutions and from people keen to become involved in co-ordinating and supporting the workshops at the current and new locations. Please contact us at specialinterestgroups@icheme.org.

Ageing Assets

In many countries, Operators of major hazard sites increasingly face the problem of ageing assets. The paper linked below highlights the major hazard aspects of ageing in the Netherlands where there are approx. 400 major hazard chemical sites, many approaching the end of or exceeding, their design lifetime.

[Ageing Assets at Major Hazard Chemical Sites](#)

Hazards Conferences

The next [Hazards Australasia](#) will take place in Melbourne, Australia between 25 and 27 September 2022. For the first time [Chemeca](#) will be held in conjunction with Hazards Australasia.

The next Hazards conference will take place in Harrogate, UK between 18 and 20 October 2022.

[Hazards 32](#)

This will be the first in person Hazards conference since 2019 and the S&LP SIG will provide attendees with an opportunity for informal meetings and networking with S&LP SIG committee members during the conference. We will provide more information nearer the time

via the normal channels including LinkedIn and our website.

Professional Process Safety Engineer (PPSE)

Changes have been made to PPSE as well as supporting changes to IChemE by-laws to enable direct entry applicants to achieve CEng status.

The competence and commitment requirements for Chemical Engineers and PPSE have been reviewed and updated by the IChemE Professional Formation Forum.

Currently, IChemE is piloting the revised PPSE process for Chartered Chemical Engineers.

Additionally, there are several developments ongoing with the PPSE registration process including software revisions and a new application process.

IChemE have indicated that PPSE applications from Chartered Chemical Engineers are planned to be available again by the end of 2022.

For applications for CEng PPSE direct entry, IChemE expect that the majority of applicants will not have an accredited Master's level academic qualification and use of the Individual Case Procedure (ICP) will be required. IChemE have indicated that significant work is required for the PPSE ICP to be developed, piloted and then implemented.

IChemE plan to provide further communication on PPSE application process status and progress via TCE and other channels.

Loss Prevention Bulletin (LPB) – Can you predict a future accident?

The LPB has been running a series on Accidents of the Future, which is based on the premise that people fail to learn from incidents, and the same accidents continue to recur. The LPB would welcome ideas and contributions from as wide a range of members as possible on:

- ❖ What repeatable accidents you predict for the next few years?
- ❖ Why these same accidents recur? And
- ❖ What are we failing to learn?

If you would like to add your thoughts to this series and see these shared in LPB, please complete the [template](#) and return to the [editor](#).

MHC Process Safety Competence Project

Further information on the Process Safety Competence project was provided in the [February 2022 S&LP SIG Newsletter](#).

A survey of 1,500 IChemE members is planned during September /October 2022 to provide further key input to the project. Additionally, we are keen to provide the question set to other people that wish to contribute. So please contact us at specialinterestgroups@icheme.org if you would like to express an interest in completing the survey question set.

The survey objectives are:

1. To test the definitions and approach used within MHC Process Safety Competence Project
 - a. Identify and evaluate potential adjustments
2. To ask a wider IChemE member audience questions relevant to their individual career phase, experience and journey to help validate and expand the journey map work
3. To identify and evaluate trends and patterns from a wider audience
4. To identify areas that work well and areas for improvement
5. To engage the wider IChemE membership in the project

Additionally, there will be a discussion session at Hazards 32 exploring IChemE members' role in teaching process safety to chemical engineering undergraduates that will provide further valuable input to the project.

MHC Lessons Learned Project

The Lessons Learned project is being delivered by a volunteer working group.

The project is intended to enhance the impact of IChemE lessons learned resources, turning good practice into common practice. The project objectives are to:

- ❖ Identify ways in which the visibility and accessibility of IChemE incident lessons material can be enhanced
- ❖ Stimulate increased and more proactive membership engagement with the lessons learned material available.
- ❖ Identify ways to leverage IChemE's network to promote turning good practice into common practice.

- ❖ Identify potential opportunities to enhance the role of leadership in driving cultural change around learning and embedding good practice and lessons learned.

We would welcome comments and questions, please contact us at

specialinterestgroups@icheme.org.

Lessons Learned Database (LLD)

Fifty-two incident case studies from the Lessons Learned Database have been published as an e-booklet, which is available at:

[Learning Lessons from Major Incidents \(icheme.org\)](https://www.icheme.org/learning-lessons-from-major-incidents)

The e-booklet publication coincided with the June 2022 safety theme for ChemEng Evolution.

Further incident case studies continue to be added to the underlying LLD. The full and continually developing LLD is available at:

[Full Lessons Learned Database](#)

ChemEng Evolution

During June 2022, ChemEng Evolution focussed on 'Processes and Safety'. On 8 June, IChemE held a panel discussion, '*New Safe Processes for a Sustainable World*', in which high profile chemical engineers explored their vision of the future. This was the most popular of IChemE's monthly centenary panel discussions so far. The need to renew focus on lifecycle analysis was a key discussion topic.

On 21 June, the S&LP SIG organised a webinar titled: '*There's more to risk assessment than HAZOP*,' which celebrated the development of hazard studies, including but not limited to HAZOP, by chemical engineers and explored good practice. There were 175 attendees from 39 countries. The event covered the history of HAZOP development and the wider multi-stage hazard study process used currently by Syngenta.

There are recordings of both events available on the S&LP SIG website:

[S&LP SIG Webinar Archive](#)

European Federation of Chemical Engineering (EFCE)

The new representative on the EFCE Working Party on Loss Prevention and Safety Promotion in the Process Industries is Joseph Isimite. More information on the Working Party is available on their website:

[Loss Prevention \(lossprevention-wp.eu\)](https://www.icheme.org/loss-prevention)

We will offer Joseph every support in his new role.

Incident Round-Up

Unfortunately, technical (process) safety incidents continue to occur. As loss prevention and process safety professionals, we continue to learn in order to prevent more in future. The following incidents have occurred since the last Newsletter. Please contact us at specialinterestgroups@icheme.org, if you would like to highlight a recent incident.

[Yeosu Steam Cracker Fire, 11 February, South Korea](#)

Explosion during a 'test run' after cleaning of a heat exchanger. Four people killed.

[Irish Sea Oil Spill, 16 February, UK](#)

Spill of crude oil from a subsea pipeline.

[Aliceville \(Alabama\) Dust Explosion, 5 March, USA](#)

Dust explosion at lumber plant when a dust collector was restarted, one person injured and led to a fire.

[Grevena Dynamite Plant Explosion, 21 March, Greece](#)

Explosion completely destroyed production building and killed three people.

[Sokoto Cement Plant Fire, 18 March, Nigeria](#)

Explosion and fire in diesel storage area during maintenance, led to the deaths of three people.

[Jeddah Tank Fire, 25 March, Saudi Arabia](#)

Large tank fire at fuels distribution terminal, reportedly caused by an attack by drones and /or missiles.

[Quintana Island LNG Plant Fire, 8 June, USA](#)

Failure of an LNG pipe leading to fire at LNG liquefaction plant, caused a lengthy production outage.

[Aqaba Chlorine Leak, 27 June, Jordan](#)

Pressurised chlorine container dropped at port, with toxic cloud. Thirteen people killed, 260 people injured.

[Middlewich Chemical Plant Fire, 18 July, UK](#)

Fire at chemical plant during summer high ambient temperatures, with nearby residents asked to close windows and doors.

[Daegu Water Plant Toxic Gas Leak, 20 July, South Korea](#)

Toxic hydrogen cyanide leak at water purification plant killed one person cleaning a tank and seriously injured two other people trying to rescue him.

S&LP SIG Committee

The S&LP SIG committee last met on 15 June 2022.

Planned future S&LP SIG committee meeting dates:

- ❖ 15 August 2022
- ❖ 17 October 2022
- ❖ 12 December 2022

The S&LP SIG Annual Meeting is planned for 2 September 2022 or later. Andy Rushton will stand down as Chair at the Annual Meeting.

Before and during the Annual Meeting, we will invite and encourage applications from S&LP SIG members to join the committee and potentially offering themselves for election to one of the elected roles.

If you have something for the committee to consider, please contact Andy Rushton, Chair, at specialinterestgroups@icheme.org.

We are grateful to those who take the time to contribute to the S&LP SIG Newsletter. Please note that content and opinions are those of the contributor(s) (or in resources accessed online) and do not necessarily reflect the views of the Safety & Loss Prevention Special Interest Group Committee or the Institution of Chemical Engineers.