



epsc

Annual
Review
2015



Chairman's Message

Welcome to the EPSC Annual Review for 2015 and the opportunity to reflect on our activities for the last 12 months as well as provide an outlook for 2016.

2015 has been a varied and exciting year for EPSC, with new initiatives alongside our regular activities. In June this year EPSC presented its long standing lecture session at theACHEMA Congress and for the first time the Centre exhibited in the main show itself. Whilst EPSC typically exhibits at conference led events such as Hazards,ACHEMA is altogether in a different and major league. We were very glad to receive help and support from EPSC members on the stand and it was source of pride to be part of this celebration of the chemical industry community.

This year we established a working group which concentrates on the process safety needs of the pharma sector and comprises participation from both EPSC member and guest companies. This working group has attracted significant interest and the early indications are that this sector led model complements our more conventional topic-led groups.

We decided this year to close out the working group on the topic of process safety indicators. The timing felt right because we had concluded our participation in an international task force on global process safety reporting for the chemical sector which will now pave the way for

standardised reporting across the industry. Of course there is much still to do in implementing these arrangements but this is certainly a milestone which EPSC can look on with a great deal of satisfaction. In a case of "what goes around comes around" there is now an ideal opportunity for EPSC to follow up earlier work on leading indicators for process safety with the formation of a working group.

Coming up in 2016 is the start of new working groups, of which Investigation and Learning from Incidents will be launched soon, finalising the work in existing working groups on Inherently Safer Design and Corrosion Under Insulation and of course two TSC meetings as a main opportunity for members to meet each other and shape the work done in EPSC.

Finally this year we recognised the lifelong contribution of Richard Gowland to process safety when we presented the EPSC Award 2015 to him at our Autumn TSC meeting. As EPSC Technical Director Richard played a major role in the follow up to Buncefield and it was particularly apt that at the meeting he was able to share the lessons stemming from that accident with our members.

I wish you all a productive and safe 2016.

Piet Knijff
EPSC Management Board Chairman



Objectives

About EPSC

EPSC was founded in 1992 by the European Federation of Chemical Engineers (EFCE) and the support of the European Chemical Industry Council (CEFIC). The Institution of Chemical Engineers (IChemE), based in the UK, administers the Centre on behalf of the EFCE and ensures that EPSC funds will be solely used for the Centre. IChemE is a not for profit organisation and has charitable status under UK law. The Centre is located at the IChemE international headquarters in Rugby, England.

Our goals

1. Collaboration

Coherency among various organisations supporting process safety is important. Clear, consistent messages from all sources benefit member companies and allow faster, more decisive policy making. EPSC will pursue a policy of collaboration with other organisations that are also working towards better process safety.

2. Information

In the internet era, obtaining know-how and information is instant and is available to all. Finding out the technicalities is complete within a couple of internet searches. The new challenge is being able to select what is useful and valid. EPSC will focus on this by drawing together best practices from public sources and member companies and by providing a means to share and distribute them.

3. Influence

Clearly EPSC members are best served by an organisation that is respected and influential. Knowledge, expertise and experience in process safety are one half of the equation. Being able to apply it to maximum effect is the other. We will continue and extend our efforts with EU and national organisations where there is a relationship with process safety. We will make these activities more transparent and understandable and wherever possible we will encourage member participation.

4. Outreach

Process safety performance is influenced by a great many factors, many of which lie outside the sphere of influence of the process safety expert. Working together with other business sectors, other disciplines and institutions is crucial for long-term incident reduction. EPSC will proactively reach out beyond the normal boundaries of process safety to other types of organisation and businesses that ultimately have a role to play in better process safety.

Our methods

The core of all EPSC activities is our working groups, where our members gain most benefit from experience exchange and benchmarking practices against peer organisations. Working groups are meetings of member representatives supported by EPSC staff and resources.

Steering Committee meetings, open to all full members, are held twice every year as a forum for members to discuss current areas of work, plan for and vote on future working, and hear topic process safety presentations from both members and invited specialists from across Europe. It is from these meetings that working groups are formed.

The EPSC management board oversees all EPSC activities. The management board consists of elected member representatives and appointed representatives of EPSC and IChemE. Any representative of a full member organisation may vote on board positions and are entitled to sit on the Board if so elected.

Achievements of 2015

Process Safety in the Pharmaceuticals Sector

The traditional image of process safety is sectors such as energy or bulk chemicals. These are the classic examples of major hazard industry, but process safety is used in a much more diverse set of industry sectors. So many types of industry have process chemistry at their heart that there are numerous cases ready to challenge our preconceptions.

This year EPSC has been taking a fresh look at practices in the pharmaceuticals industry and launched a new working group focussed on this sector. In this environment batch production and complex synthesis dominates, with multipurpose plants being rapidly and frequently adapted to meet the needs of new processes. This is an environment that relies on operators and business process to ensure production runs smoothly and safely. It is also a world where product quality is a safety element of the very highest priority, an aspect not often as critical as process safety in other sectors.

No European association exists explicitly for the support of process safety in the pharmaceutical industries. Through a new EPSC working group, supported by Konstantinos Mitropetros from the EPSC regional office in Germany, we are beginning to fill that gap and provide experience exchange more tightly focused on the real issues facing the sector.

A sector-led working group is a new direction for EPSC, and the Pharma group meetings have assumed a more workshop-like character to reflect the diversity of the topic. Nevertheless, the objectives of the group remain aligned with EPSC's core objectives. The group will facilitate experience exchange among its members, compile information on good safety practice, and engage with outside groups such as regulators, research groups, and standards bodies to ensure that the viewpoint of a unique sector is not neglected.

Process Safety Indicators

2015 saw one of EPSC's longest running working groups come to a close. Many organisations recognise the importance of performance metrics for process safety, and there has been a significant body of work on indicators from industry groups and regulators, including competing indicator standards. Encouraging the use of these indicator systems became one of the early tasks that EPSC adopted. In 2015, negotiations led by ICCA (the International Council of Chemical Associations) developed proposals for a global harmonised indicator standard for process safety, and created a path towards its adoption. EPSC has been closely involved in this process throughout, and with the potential for a unified reporting standard in sight, considers the group has now concluded its work.

Corrosion Under Insulation (CUI)

The working group studying corrosion under insulation completed several objectives in 2015, starting with a literature review to find the best existing guidance on the topic. The group has produced several products as a result of their initial work, ranging from toolbox talks aimed at awareness raising for frontline staff, to case studies published in the Loss Prevention Bulletin. EPSC has also contributed magazine articles on concealed corrosion, to promote better understanding of a risk that is easily overlooked.

The Year Ahead

For the year ahead the fundamental safety challenge remains for the major hazards sector to drive down the rate of process safety incidents such as leaks and spills caused by loss of containment. It sounds simple but in fact although there is evidence to suggest that there are fewer year-on-year major hazard events, those that do occur tend to be more deadly, cause more damage and inevitably grab more headlines, which can set public opinion for the whole sector.

In Europe it seems that we have become victims of our own success to the extent that when major incidents do happen there is potential to be less prepared both in handling abnormal situations in the build up to a major incident. Hence remaining vigilant and combating complacency remain the watch words.

During 2016 EPSC will reach out to the research community and in particular seek opportunities for developing near reality environments and experiences of operating hazardous plant that have none of the adverse consequences when control is lost. To that end the Centre is keen to exploit the concept of "serious gaming" which has recently emerged as a credible mode for the training of front line staff.

In recent years EPSC has been heavily involved in discussions on process safety indicators both leading and lagging to flag up holes in layers of protection through which a major accident may propagate and escalate. Potentially we may be entering a novel phase of data analysis through "big data", the use of which may provide a more dynamic profile of operating risks. Although relatively recent on the scene as a predictive indicator EPSC has long recognised the benefit of such tools and particularly in 2003 when it made its annual award to Robin Brookes for his work on geometric process control.

Overall one of the keys to successful process safety management is for all workers to have the same picture of barrier strength and the associated risk regardless of whether they are on the frontline or in the boardroom. As soon as a common view of risk is in place, much of the complexity is removed, enabling more effective collaboration and coordination both within a business and within the wider industrial community.

Loss Prevention 2016

The 15th International Symposium on Loss Prevention and Safety Promotion in the Process Industries is part of the long running conference series and a major event in the process safety calendar. It was formed by the EFCE working party on loss prevention as a way to promote major accident hazard safety, and the 2016 event is being run by Dechema with the support of EPSC, ScienceIndustries, and VCI. For the 2016 event, we have provided administrative assistance and support to authors in the handling of abstracts and papers to be presented. EPSC will be in attendance as an exhibitor, and many EPSC members will be presenting work through the conference.

Hazards 26

There will be an opportunity to meet us again at the 2016 IChemE Hazards conference, for which EPSC will attend as a supporter and exhibitor. We will be contributing a presentation on the interaction between regulators and industry in influencing safety culture, and exploring the importance of culture on safety performance.

International Cooperation

IChemE

The Institution of Chemical Engineers is host and provider of services to EPSC. EPSC does not possess independent legal status, but for an annual fee is granted contractual identity by IChemE, together with all the central services and business infrastructure essential to modern networking. This close integration is an ideal environment for cooperative projects between IChemE and EPSC, allowing ventures such as the IChemE Hazards conference series to be given ideal support from EPSC, among other opportunities for synergy.

EPSC is a long standing supporter of the annual Hazards conference. In 2015 the Centre participated in Hazards 25 in Edinburgh as an exhibitor, gave a conference presentation and chaired a session on human factors and management of industrial alarms. EPSC support for the event includes representation on the Hazards technical committee which provides a peer review of submitted abstracts and papers. At Hazards 25 several member company representatives were in attendance to present work. Alongside these, EPSC presented on the topic of internal auditing for process safety, based on a member report that was recently updated from the results of a survey of member practices.

Other cooperative ventures include IChemE publication, the Loss Prevention Bulletin, a series of detailed and peer reviewed case study material on incidents from the process industries, as well as technical articles on good safety practice.

All EPSC books and other publications for sale are available via IChemE.

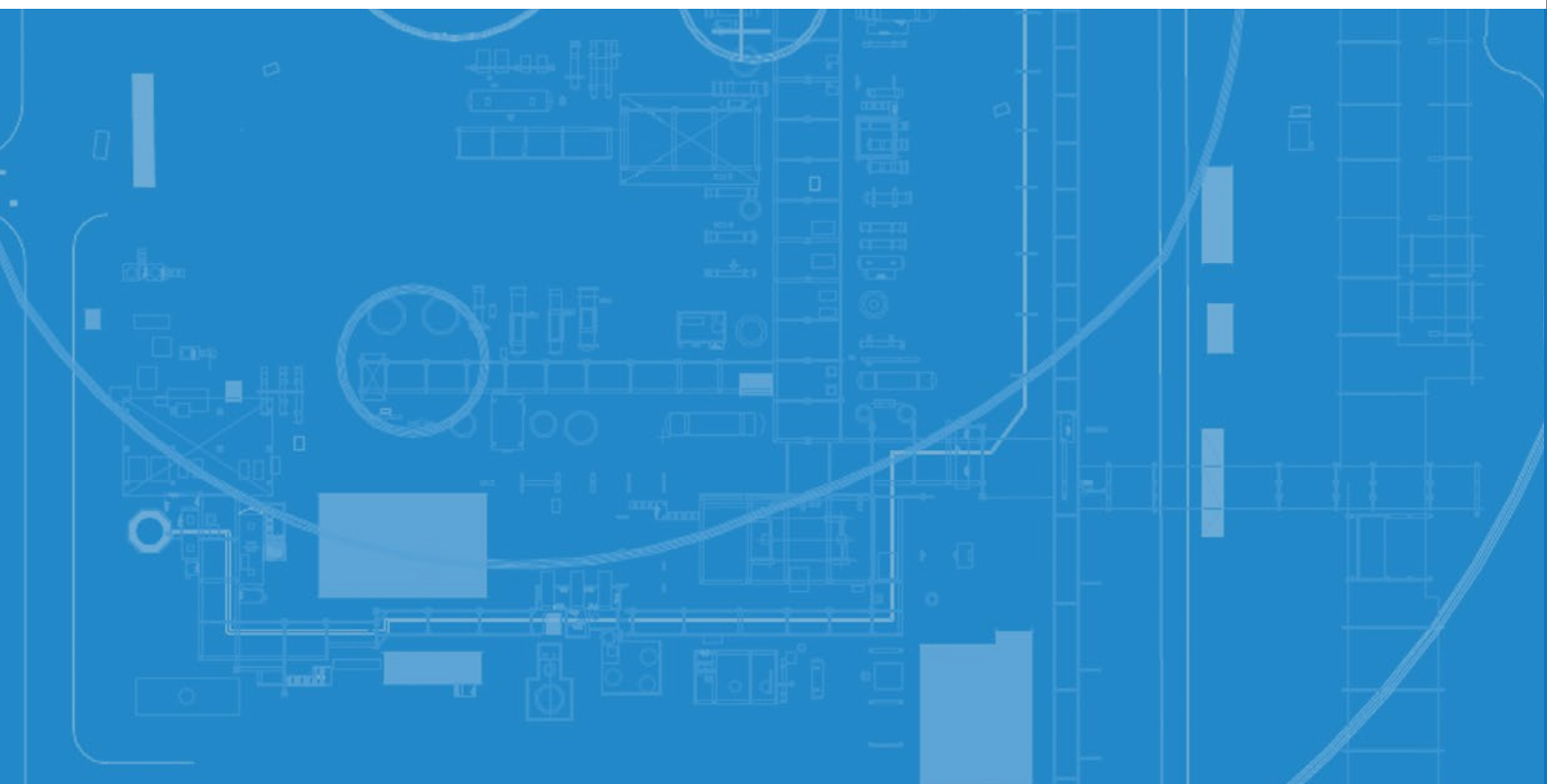
TWG2

EPSC is an industry representative on a pan European technical working group on Seveso inspection, comprising the Competent Authorities, which organises an annual round of Mutual Joint Visits (MJV). In 2015 EPSC was invited to join the organising committee of a MJV workshop held over three days on the topic of safety culture, leadership and enforcement which was hosted by the Dutch authorities. EPSC organised a survey across the inspector, industry and wider process safety community on the topic of safety culture and presented the results back to the workshop. The workshop results have formed the basis of an EPSC co-authored paper which is to be presented at Hazards 26.

DECHEMA

With the assistance of DECHEMA as a host, EPSC has created its regional office to engage with continental Europe, sharing both facilities and the time of regional executive, Konstantinos Mitropetros. This relationship has led to cooperation in projects such as the Loss Prevention symposium, for which EPSC has taken an administrative role in the call for papers.

It is through this office that EPSC was invited to open a Workshop in Basel on the new Swiss Hazardous Incident Ordinance. The workshop was organised by Tüv Süd (SWISSI) together with ScienceIndustries and was an opportunity for EPSC to present on the new elements of SEVESO III to industry representatives.



Membership

Joining the European Process Safety Centre

Membership is open to manufacturing companies, contractors, equipment manufacturers, consultants, research associations/institutes and insurers in the following categories of membership:

Full members, whose representatives sit on the Technical Steering Committee, which decides the Centre's work programme and other activities. Company representatives may also join the Subcommittees, Working Parties and Contact Groups, are entitled to vote on which member representatives sit on the Management Board, and are entitled to sit on the Board if so elected. Full members pay an annual subscription based on their world-wide turnover:

In euros

up to €300 M	€2000
€300 M to €1500 M	€2000 per €300 M turnover
more than €1500 M	€10000

Associate members, who receive the same information as full members, including Technical Reports, Information Sheets, EPSC News, and minutes from the Technical Steering Committee. Associates' representatives do not attend Technical Steering Meetings nor participate in other EPSC groups unless specifically invited. Associate membership is restricted to organisations with less than 200 staff and academic institutions. Associates make a contribution of €1000 for annual membership.

All membership is subject to Management Board approval.

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