



# Supporting the oil industry's commitment to safe operations

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**Understanding the causes of incidents is essential for improved safety management**  
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The refining industry values the safety of its employees and staff working in its installations, as well as those living in communities near to its installations. Personal safety and safe operations are prerequisites for an industry that routinely produces and manages flammable and potentially explosive products. For this reason, safety considerations have been a major focus for CONCAWE and our member companies for as long as our association has existed.

Since 1993, CONCAWE has compiled personal safety incident statistics for downstream oil industry workers on behalf of its member companies and published them in an annual report. These statistics demonstrate the oil industry's commitment to personal safety, and a marked improvement since the early 1990s (Figure 1). Thanks to its efforts, the oil industry can report much lower incident rates than industry at large with a lost time incident frequency of 1.5 compared with 22.7 for the EU-27. Through regular meetings of safety experts within CONCAWE, member companies also have the opportunity to exchange valuable information on actual incidents, and to share the lessons to be learned more generally on a range of safety management issues.

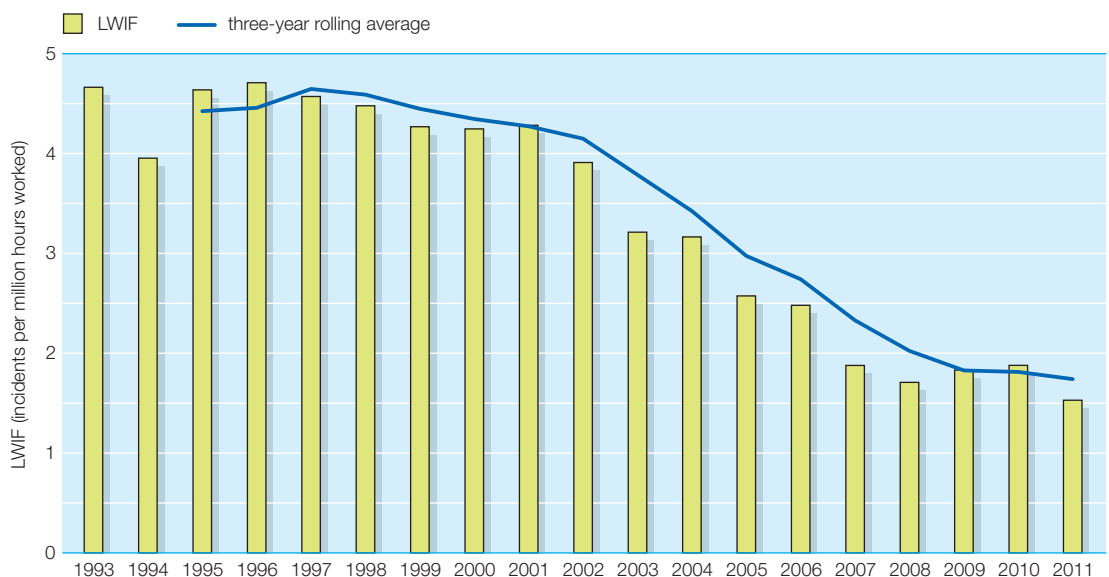
The CONCAWE structure provides a convenient and efficient channel through which the oil industry can put

forward its opinions and comments during the legislation development process. CONCAWE has been involved in all major European legislative issues related to safety, particularly the Control of Major Accident Hazards Directive, better known as the 'Seveso' Directive, that was last updated in 2012 (2012/18/EU) to align it with other relevant legislation on product safety classification. The 'Seveso' Directive and its subsequent updates provided a new regulatory framework with which the oil refineries, depots and terminals had to comply, particularly with respect to information, permitting and operating requirements.

In 2009, CONCAWE member companies reported 999 safety incidents resulting in at least one lost working day and 11 regretted fatalities. These figures can be compared to 2,306,777 safety incidents resulting in at least three lost working days and 3,911 regretted fatalities for the entire EU-27 plus Switzerland and Norway.

CONCAWE report 7/10; and EUROSTAT, 2012 ([http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Main\\_Page](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Main_Page)), 20 December 2012

**Figure 1 Lost work incident frequency (LWIF) per million hours worked, 1993–2011**



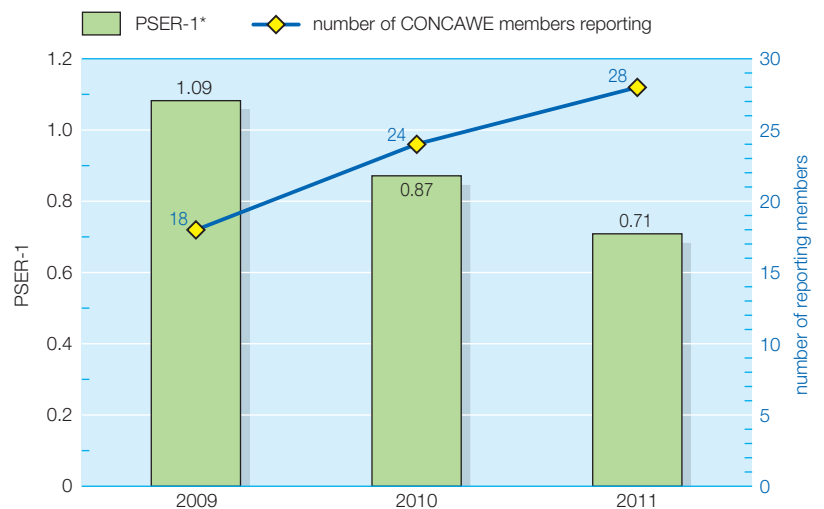


In the past decade, industrial safety management has expanded to include process safety in response to challenges presented by, for example, the Seveso directives and several major incidents such as the Texas refinery explosion and the Buncefield terminal fire, both in 2005. CONCAWE therefore began gathering Process Safety Performance Indicator (PSPI) data, in 2009. The PSPI that was selected for survey is based on the American Petroleum Institute (API) guidance published in 2010<sup>1</sup>. This work involved many safety specialists from our member companies and will make it possible to compare the process safety performance of the European refining and distribution industry with that in other parts of the world. For 2011, 82% of CONCAWE's members reported their PSPI performance, demonstrating the importance of understanding and controlling the events that could initiate major incidents<sup>2</sup>.

To date, CONCAWE is the only organisation that publishes these data, so comparing our results with those from other sectors is not yet possible. However, it is clear from the reactions of governmental officials and other third parties that our sector's openness on safety matters is a demonstration that our industry takes safety seriously and wants to learn from safety incidents. Our

commitment to safety research and reporting will enable our industry to continually raise its safety standards and performance, and thereby protect the public, as well as employees, staff and business assets.

Figure 2 Process Safety Indicator Performance, 2009–2011



\* PSER-1 the number of releases of hazardous substances per 1 million hours worked causing a fatality, injury, or fire or explosion leading to damages valued over € 25,000 or above set threshold values indicative to have the potential to cause these.

<sup>1</sup> API (2010) ANSI/API Recommended Practice 754. *Process safety performance indicators for the refining and petrochemical industries*. Washington DC: American Petroleum Institute.

<sup>2</sup> CONCAWE report 5/12