

# European cross-country pipelines

## *Performance report for 2003*

**T**he yearly CONCAWE report on the safety and environmental performance of European cross-country pipelines is complete and will be published soon.

The data collected for 2003 from 65 companies and other bodies covers 250 different pipelines with a combined length of more than 36 000 km. In 2003 these lines transported some 817 million m<sup>3</sup> of crude oil and refined products for a total traffic volume of 143 x 10<sup>9</sup> m<sup>3</sup> x km, up 11% compared to 2002. The database includes virtually the entire land-based oil pipeline inventory in the EU-15 and is being gradually extended to the new Member States.

There were 10 reported oil spills from these pipelines during 2003 with no associated fires or injuries. This is somewhat less than the long-term average of 12.7 spills per year since 1971. Taking into consideration the fact that the length of pipelines included in the survey has increased over the years, it is much better than the average result as measured by the frequency (0.27 spills per 1000 km/year in 2003 versus a long-term average of 0.53 spills per 1000 km/year).

2830 m<sup>3</sup> of oil were spilled of which nearly 90% was from a single event. A total of 1210 m<sup>3</sup>, i.e. 43% of the spill, was recovered or safely disposed of. The net oil loss into the environment amounted therefore to 1620 m<sup>3</sup>, 86% of which was from the same single event. This large single spill, resulting from a slow undetected leak following damage by third-party machinery, makes the

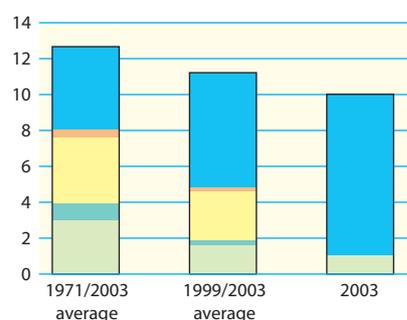
total the worst figure for many years both in terms of gross and net spillage. Relative to the total length of pipeline under survey the performance was still of the same order of magnitude as the long-term annual average (78 litres per km gross and 44 litres per km net in 2003 compared to long-term averages of 90 and 40 litres per km per year).

One (minor) event was caused by mechanical failure but all of the remaining nine events were attributable to third-party actions. Three events were due to accidental direct damage, four were caused by criminal activities (theft) and two resulted from hitherto undetected damage to the pipeline caused by a third party in the past.

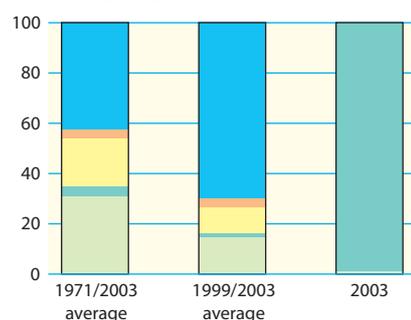
Figure 1 shows how improved operational, monitoring, inspection and maintenance practices have, over the years, successfully reduced the number of incidents due to mechanical failure, operational mishaps and corrosion. In this connection the report also contains an account of the intelligence pig inspection activities in 2003 and in previous years.

The industry has thus steadily improved the reliability and safety of oil pipelines in Europe. However, third-party activities remain a major issue and must be the focus of attention. They have historically been the major reason for spills from pipelines and the 2003 figures clearly reinforce this trend.

**Number of spills per year**



**Percentage of gross volume spilled**



**Figure 1**

*Most pipeline spill incidents are the result of third-party actions, either unintended, accidental or criminal.*

