

This is a translation of an article published April 21 in Svenska dagbladet (<http://www.svd.se/farliga-kemikalier-maste-fasas-ut-snabbare>)

More ambitious chemicals policy needed – the phase out of hazardous substances in Europe is unreasonably slow

April 21 was the sunset date for trichloroethylene (TCE) in Europe. The use of this chlorinated solvent is now only allowed upon specific authorization. The neurotoxic and carcinogenic effects of TCE are well-documented. Despite the health risks for industry workers from exposure to TCE, it has been widely used in industrial metal degreasing for decades. The tightening of the European regulation of TCE is welcome, but unreasonably slow. Sweden banned the use of TCE 20 years ago.

The slow phase out is symptomatic for the management of dangerous substances in Europe and demonstrates the need for a more ambitious European policy on chemicals. The lessons learned provide important clues for a more efficient and effective chemicals policy. Some key components are open access to information about the use of dangerous substances, increased use of taxes and charges, and regulation targeting of groups of chemicals rather than individual substances.

The use of TCE has declined in Europe since the beginning of the 90ies, mainly due to the introduction of different policy instruments and the development of alternative – mainly water based – degreasing methods. More stringent emission standards led to a move towards closed degreasing machines with carbon filters, greatly reducing occupational hazards. Germany early imposed tough requirements for the use of TCE and only allowed closed systems. Sweden decided in 1991 to ban the substance from 1996, but after strong protests from the industry the possibility of exemptions from the ban was introduced. Many companies could continue to use TCE well into the 2000s. Today, the use of TCE has largely ended in Sweden, but the phase-out happened at significant political and administrative costs. Norway chose a different path and introduced a tax on TCE in 2000, which quickly led to a sharp reduction in use. Overall, the Norwegian model, where a tax on use combined with tough limits on emissions has been the most cost-effective policy instrument for phasing-out TCE.

Despite the existence of alternatives to TCE, we see no evidence that the tightening of the European regulation of TCE will lead to a phase out of the substance. Applications for the continued use of 13-100 thousand tons TCE per year are currently waiting for the approval by the European Commission. For example, one of the two producers of TCE in Europe is applying for the continued use of the substance on behalf of 800 customers across a variety of industry sectors over the coming 12 years. The European Chemicals Agency assesses the applications for authorization from the industry. The experience of the Swedish ban on TCE shows that companies have obvious incentives to exaggerate the costs of substituting TCE in order get an exemption. Still, the European Chemicals Agency seem to have difficulties in challenging industry data since there is often no objective information on the cost of alternative methods available in specific situations. Consequently, in the majority of the cases the European Chemicals Agency recommends that authorization is granted, albeit for

slightly less than the 12 years requested. In some cases continued use of TCE may be justified, but if generous permissions are given in areas where many Swedish and other companies have managed to substitute TCE, then the sunset date for TCE will be meaningless. We suggest that the authorization of continued use is combined with a stiff charge per kg use of the hazardous substance. Such a charge would create a continuous incentive to switch to less harmful substances.

The lack of publicly accessible information about how much and where hazardous substances are used is striking. For example accessing data on how much TCE is used in Europe and by which companies has proved impossible. Since 2006 there are only two producers of TCE in Europe. To protect these companies' business interests, the industry has not had to present statistics on the use of TCE since then. Due to this lack of accessible data we cannot with certainty tell if the use of TCE has increased or decreased since 2006 when industry reported that 25 thousand tonnes of the substance was used. This is substantially lower than the current applications for authorized use of up to 100 thousand tonnes. Secrecy also makes the evaluation of the effect of different policy instruments difficult. Has, for example, the voluntary commitment of the TCE-producers in year 2010 not to sell TCE to industries that use open TCE-machines (with large emissions) had any effect?

We question whether this restrictions on access to information is justified. Should not the public's right to information outweigh business interests to continue to sell such hazardous substances? Open access to information is fundamental for both the design and evaluation of an effective chemicals policy.

The slow, complex and costly phase-out of TCE illustrates the need for a reformed and more ambitious European chemicals policy. Since 2007, only TCE and 30 other subjects have been given sunset dates. A further 130 substances are on the EU candidate list of substances of very high concern. Outside this list there are hundreds of other substances suspected to give rise to significant negative impacts on health and the environment. One such substance is perchloroethylene (PER), which is similar to TCE, but whose main use has long been in dry-cleaning. Surprisingly PER is not regulated in the same way as TCE neither in Sweden nor in the EU.

Instead of evaluating and regulating chemicals one by one, a more effective is generally to focus on groups of chemicals. For example, TCE, PER and similar chlorinated solvents jointly, as done in Denmark and Norway. Norwegian experience also shows that taxes can be as effective as a ban, and much easier to implement. If the goal of a non-toxic environment is taken seriously, a much more effective chemicals policy is needed.

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