

Annex to the EUROFORGE Position on the

"Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) and Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste" (22-06-07).

What does „forging“ mean for Europe?

Forging stands for the technologies of drop forging, open die forging and cold extrusion. With a production volume of almost 5.0 million tons, European forging is the second largest producer worldwide (after China and before India). 62,000 employees work in 500 companies in the sector and produce forged parts for high-tech applications every day. The European companies are technological world market leaders and pioneers in terms of innovation, work safety, environmental protection, energy efficiency and decarbonisation. With more than 99% of our products being recyclable we contribute a great share to the EU-Circular Economy Goals.

The European forging industry is predominantly SME-structured. Over 75% of the companies employ less than 250 employees. The indispensable transformation in mobility, climate protection, and digitalisation requires innovative processes, qualified personnel, and financial potency within the European industry sectors.

The industry's annual energy use in the form of natural gas and electrical power amounts to an estimated 6.7-terawatt hours. This corresponds (indirectly and directly) to approximately 13.0 million tons of CO₂ emissions. Through innovative improvements, these emissions have already been reduced by almost 20% in the past 25 years - this corresponds to approx. 2.6 million tons of CO₂. We are currently working on a climate path for European forging with the goal of climate neutrality by 2045.

It is estimated that European companies operate approx. 2,760 forging units, of which approx. 20% are hammers and 80% presses. Our products go as key components into the sectors of vehicle construction, railway technology, shipbuilding, mechanical engineering, agriculture, (wind) energy, medical devices, defence and many others, thus ensuring our autonomy in the face of global competition from China, India, and others.

EUROFORGE represents the interests of the European forging industry. We are involved in the revision of the SF BREF ("Smitheries and Foundries") as a member of the Technical Working Group and are member of the Article 13 Forum.

Why is the proposed extension of the scope for forges (Annex I, 2.3 (b) not appropriate?

Within the framework of the IED amendment, an extension of Annex I, 2.3 (b) is suggested. The current scope of the IED includes plants with hammers that apply an impacting energy of more than 50 kJ and maintain thermal processes with a capacity of more than 20 MW. In the new version, this scope is to be extended to establishments with hammers above 20 kJ without reference to any heat output. Additionally, plants running forging presses with a pressing force of 10 MN, or more are supposed to be considered in the future scope.

In the current SF BREF revision, the emission types of noise, vibration and NO_x and CO emissions are defined as Key Environmental Indicators (KEI).

In our view, the following points speak against the extension of the scope:

a. Noise and vibration are not Key Environmental Indicators for small hammers and presses.

Hammers > 50 kJ impacting energy have a noise emission of about 111-114 dB(A) at a distance of 7 m. Hammers with 20 kJ are only about 107 dB(A). Screw presses with 10 MN pressing force emit approx. 93 dB(A). Since a delta of 3 dB(A) corresponds to a doubling or halving of the sound power ("noise"), smaller hammer plants and presses in the proposed scope are significantly (50%-80%) below that of large hammer plants, as previously considered. In this respect, forging presses not only have a significantly lower noise emission than hammers, but also a different noise profile.

For noise and vibration, moreover, the emission effect should rather be considered from an environmental protection point of view. The emission intensity for these two factors depends on the respective environmental conditions (distance to source, soil, and landscape conditions, ...) and cannot be evaluated objectively / comparably via emission values.

In addition, the noise and vibration effects of the individual operations do not accumulate from an overall environmental perspective, as they occur purely locally. This significantly reduces the relevance of the defined KEIs as "significant environmental factors" in the sense of the IED and does not justify an extension of the scope.

b. The inclusion of additional installations does not lead to any relevant air pollutant reductions

The air pollutant emissions (NO_x and CO) of the furnace installations (gas heating or heat treatment) covered by the current SF BREF are already well below the limits of national limits. In almost all cases, there is not even a need to channel the emissions, but they can be discharged untreated into the hall air. Including further forging plants in the scope of the SF BREF would therefore not lead to any significant environmental improvements.

c. Only a fraction of the forging plants emit air pollutants at all

Gas heating, which is generally responsible for NO_x and CO emissions, is only used in about 20-30% of forging operations. This is mainly for heating larger forgings, which are then also formed on larger hammers or larger presses. Due to the smaller size of the components, the other companies can heat electrically inductive or conductive. In cold forging, no preheating is carried out at all.

Likewise, only about 50% of the European companies operate their own (gas-operated) heat treatment plants. The other companies use external hardening shops or deliver the workpieces in an untreated or air-hardened state. Thus, a significant number of the companies that would fall within the scope of the revised IED do not use fossil energy at all.

d. Expanding the scope slows down transformation and overburdens the authorities

As part of the industrial transformation a simplification and, above all, acceleration of licensing procedures will be necessary. However, inspections within the scope of licensing procedures for IED installations are much more extensive and complex than the procedures required to date, so that a significant extension of future licensing procedures is to be expected. Investments by companies in future technologies (decarbonisation, digitalisation) would be massively delayed and possibly prevented.

e. SME-sized companies cannot afford the IED requirements.

The status as an IED plant leads to more extensive reporting responsibilities for the concerned companies. The additional personnel and financial spending required cannot be provided by the predominantly SME-sized companies in our sector.

What are the consequences for smitheries if the proposed extension of the scope is implemented?

The proposed extension would increase the number of installations in Europe affected from 1-2% today (7 installations in the EU) to approx. 90% (> 450 companies in the EU) and would essentially affect SMEs. This expansion goes far beyond the objective of the IED ("reduction of significant environmental factors") and completely lacks the "focussed approach" that should be applied to all EU processes.

The proposed extension of the scope does not consider the different operational conditions in the potentially affected companies. Accordingly, a cold forging operation (without any heating and with none or external heat treatment) with a 10 MN hydraulic press could already be found to be an IED plant in the future, although no air pollutants and negligible noise emissions are generated.

For the above reasons, the extension of the scope of IED Annex 2.3 (b) is neither environmentally sensible nor manageable by industry and the authorities. The expected high burden on SME companies due to additional administrative effort and delayed / increased approval procedures will result in numerous plant closures or relocations to non-European sites.

This would be accompanied by a shift of environmental emissions to other non-EU countries analogous to carbon leakage and would not mitigate the environment but weaken the economic power of the European markets.

What adaptation of the Commission's proposal on the scope do we propose?

We propose a waiver of the proposed extension of the scope of the IED Directive Annex I, 2.3 (b).

In any case only a combined approach of the criteria energy / power and fossil heat output (as is in the current Annex) should be applied when defining the scope!