Statement

of the German Iron- and Steel Industry on
the Communication from the Commission

„Towards a thematic strategy on the prevention and recycling of waste“

dated 27. 5. 2003 (COM (2003) 301 final)

The German iron and steel industry explicitly welcomes the Commissions initiative to strengthen the position of recycling within the framework of an economic point of view by the communication on “Towards a thematic strategy on the prevention and recycling of waste“.

The communication on hand is closely connected with the communications on integrated product policy as well as on the also projected strategy on resources. A comprehensive assessment of the document will therefore only be possible when all three draft strategies are finally available.

Furthermore, as the document is linked to the other already existing legal regulations, a detailed review regarding the connected, to be amended regulations has to be carried out.

Recycling and waste prevention, in particular from the point of view of the conservation respectively exploitation of resources are of special interest for the steel industry. Already today the total amount of steel scrap available on the market is completely used for the production of steel in the different production procedures worldwide. Because of the durability of the generated products and their global distribution, at the end of the useful life the corresponding steel scrap is not necessarily available for recycling in the country of the original steel production. According to the suggested strategy, steel scrap recycling is therefore an effective contribution to the protection of resources and the sustainable global development.

From the point of view of the German iron and steel industry, the suggestions for both parts – waste prevention and recycling – currently can be summarized as follows:

Waste Prevention

• The implementation of new initiatives for waste prevention has to be postponed until the impacts of the European directive for the Integrated Pollution Prevention and Control (IPPC Directive) which are only just adopted in 1996 as well as the directives on the landfill of wastes, incineration of waste, end-of-life vehicles and Waste from Electrical and Electronic Equipment (WEEE), can be judged sufficiently.

• Waste prevention has to be classified as equally important as an external reuse of material (=recycling) or an energetic utilization to ensure functioning of the recycling market from the economic point of view and additionally to achieve a sustainable protection of resources, after all, the recycling procedures that are used for waste prevention are usually integrated in the plant.
• The measures and instruments used for waste prevention should be restricted to those wastes for disposal with existing technical recycling procedures which can be used in an economic way, taking into consideration the principle of proportionality.
• An expansion of the REACH-System to wastes cannot be justified. Without an exclusion from the waste legislation by the means of a suitable distinction between product and waste, the REACH-System would represent an unreasonable, bureaucratic supplementary burden for the recycling of the materials iron and steel as well as for wastes for disposal.

Waste Recycling:

• The dismantling of bureaucratic obstacles, as e.g. the acknowledgement of certain scrap types as raw material/product for the steel production and their exclusion from the existing waste legislation, is a fundamental precondition for a functioning and regular waste or steel scrap recycling.
• As already shown by the example of emission trading, the trade with recycling certificates that is brought up for discussion in connection with the European recycling quotas would increase the administrative effort significantly. At this time it is not possible to predict how far the functioning and unproblematic recycling of iron and steel that is established in business would be burdened.
• Certificates can achieve neither qualitative nor quantitative improvements regarding a functioning, uncomplicated waste and recycling industry that exists under the conditions of an economy-based market.
• Recycling standards are to be harmonised internationally. This is the only way to avoid as far as possible distortions of competition and the influencing of global flows of (secondary) raw material, due to different economic and social standards.
• It has to be guaranteed that the use of carbon containing materials (carbon carriers) in steel works processes will be maintained as recycling process and as substitute for primary energy carriers, respectively acknowledged as (raw) material recycling.

Conclusion:

In several points we really appreciate the approaches included in the Commission’s communication. At present it cannot be assessed whether these approaches are in accordance with EU laws and the EC-Contract in force. At the same time it is necessary to analyse whether the current approach is as far-reaching as necessary or whether a turning away from the current waste legislation towards a more material-related contemplation of the problem might be an alternative. This way at least a distinction between product and waste would be unnecessary. From our point of view however, the introduction of recycling certificates and the application of REACH on waste legislation cannot be approved. Regulations that are compatible to the world market are necessary, in particular with regard to the iron and steel scrap industry that is functioning under the conditions of a market economy; every other solution would result in a reduced production and consequently in the dismantling of jobs.
1. Introduction

Steel is the basic material for a sustainable development of modern industrialized societies - due to its versatile properties as well as because of its complete and residue-free recycling possibilities. It is used in almost every important field of industry, as for example in the field of apparatus and mechanical engineering, bridge-building and structural engineering, power and environmental engineering, transportation and traffic. The amount of produced and consumed steel in a certain country or region along with the export (=global demand for steel) depend on the development of the population as well as on its technical and economic level of development.

The global production of crude steel rose from 40 million Mg in 1900 to 902 million Mg in 2002. With an annual production of 45 million Mg, Germany ranks on the fifth position. Steel is and will remain one of the most important materials and has an extraordinary cost-effectiveness.

Basically steel production is mainly carried out in two different ways. During the first steel making route via blast-furnace / basic oxygen furnace, pig iron is produced in the blast furnace from iron ore, supplements as well as coke and afterwards converted to crude steel in the basic oxygen furnace. In this connection the recycling of steel scrap for steel production is only natural and also necessary from the procedural point of view, for more than 100 years now. During the second steel making route - electric steel making - on the other hand crude steel is produced by the melting down of steel scrap in an electric arc furnace. This type of steel scrap recycling is established for the production of crude steel for a long time and a common event on the market. In both cases further processing of crude steel is effected by secondary metallurgy followed by (continuous) casting and rolling or metal forming and if necessary by surface treatment.

Environmental protection takes place during all steps of the steel production process, independently from the steel making route: in coking plants, sinter plants, blast furnaces, basic oxygen furnaces and electric steel works. Progressive techniques for the protection of the environment are used in all plants. There are numerous indicators to prove this statement, as for example the use of fossil energies: The consumption of carbon carriers in the production of iron ore approaches its minimum regarding process engineering. Since the Sixties of the last century, despite the enormous amount of energy used for measures for environmental protection, the specific energy efficiency per Mg of steel has dropped by more than 30% and the specific consumption of primary energy related to the production of crude steel by more than 37%. Wastes are prevented as far as possible or they are recycled (internal/external material use).

2. Waste Prevention (No. 4.2)

The sustainability of an environmental friendly steel production becomes evident by the recirculation of steel products, as they don’t go to land fills at the end of their useful life, but are used again as secondary raw material (iron and steel scrap) in the steel production.

Scrap can be led back to the material circulation without any restrictions. The elementary structure of metals makes uncountable recycling circulations possible, without any losses in quality (no downcycling). Due to these unique recycling qualities, the
The amount of iron and steel used in material circulations worldwide rises continuously according to the capacities of the market. This way resources are not consumed irretrievably in the production of iron and steel but rather converted and remain therefore available for the coming generations. Production, utilization and recycling of steel therefore guarantee the possibilities of development of future generations and consequently fulfil the basic requirements of a sustainable development. The share of scrap of almost 400 million Mg worldwide – with regard to the crude steel production of 902 million Mg – represents are market-dominated share of recycling of 44% (see also [1]). The remaining 56% however are not lost but is due to the long useful life of steel products still in use and will be available for recycling later. Following the true meaning of a circulation, the use of scrap for the steel production consequently contributes significantly to the reduction of energy used and thus also contributes to the reduction of carbon dioxide emissions.

Blast furnace slag and BOF slag from the iron and steel production also contribute to the protection of the natural resources. These slag types are used deliberately for the production of products for the cement and concrete industry, road construction and the fertilizer industry, that fit smoothly in the concept of sustainability. The blast furnace slag produced in Germany is led back to the economic circle up to 100% in form of products, the BOF slag up to 90%, resulting in a total share of 95% of used steel works slag types. The amount of 13 million Mg of blast furnace and BOF slags produced annually by the German steel industry are products and no wastes and add to the German steel industry’s concept of waste prevention.

The steel industry makes a substantial contribution to the efficiency of resources and plays a leading role within the entire industry. Even though Germany’s gross domestic product (GDP) has increased by 15.1% since 1991, the utilization of raw materials has dropped by 1.9% and the water consumption by 11.4% and carbon dioxide emissions by 11.8% respectively. These figures are surpassed by far if focussed to the iron and steel industry: raw materials –2.4%, water –56%, carbon dioxide output – 17%. The communication on hand should consequently be evaluated in connection with the strategy on resources, which is in preparation.

Within the framework of their communication the Commission already points out that “Where recycling is already profitable under market conditions, it may not be necessary and useful to develop a legislative ... “ (communication p. 18). It is already for a long time that market-economy-based and private industrial organizations as well as the international competition have led to a high level of the economic and ecological efficiency of steel recycling without the necessity of introducing a legislation regarding environment and waste legislation.

During the Nineties of the 20th century, with the introduction of the European Framework Directive on Waste, the European Directive on the Incineration of Waste and the German Cycle and Waste Management Act, regulations were established that resulted in an uncertainty on the part of authorities and industry regarding recycling materials that were formally assigned to waste legislation. Additionally, the bureaucratic obstacles regarding cross-border trade and national transport increased significantly. The same is true for the fields of the licensing procedure and the waste management plans and balances.

Steel scrap recycling does not require – the same competitive conditions provided – any management or regulation via environmental legislation. Contrary to the approaches of the COM-Communication a direct promotion of metal recycling can therefore only be achieved by the dismantling of bureaucratic and financial obstacles.

From the point of view of the steel industry landfill or incineration taxes are not an effective instrument for promoting recycling and are therefore declined. Because of the high proportion of waste prevention and waste recycling already obtained, those possibilities of waste prevention that are technically and financially justifiable are already exhausted as far as possible. Only those wastes respectively products are disposed of in landfills that are mineral to a large degree, and that due to technical conditions and the economic situation (building material and fertilizer industry) cannot be recycled or sold.

The use of secondary raw material as carbon carriers (e.g. plastics) and therefore as reducing agents in the steel making process also promotes waste recycling and is consequently in accordance with the meaning of the cycle and waste management regarding the protection of resources. It has to be guaranteed that the use of secondary raw materials in iron and steel works as substitute for primary raw materials will be preserved and acknowledged as material recycling.

3. Recycling Targets (No. 4.3)

Reflections on whether to supplement the previous product-related collection and recycling targets by material-related recycling targets, have to be checked more thoroughly with regard to the material. Basically, product-related targets are used to enforce the registration and collection of single waste streams. In general it would make more sense to wait for the effects of existing set targets of EU directives and to evaluate them by the means of a cost-benefit analysis, before introducing new recycling targets.

With regard to the iron and steel industry we have to point out once more that the registration and collection of iron and steel scrap is carried out completely and is functioning under market conditions and from the point of view of environmental protection as well. Every scrap type available in Germany is collected and supplied for steel scrap recycling. A particular characteristic of these scrap types is the existing market in combination with a functioning trade. The limited availability of such scrap types, due to the long useful life – i.e. the sustainability - of the products, is the only reason why the recycling quota of iron and steel cannot be increased further.

Even the setting of a material-related recycling target will not lead to positive changes – no matter if it is valid nationally or throughout Europe. Additionally it has to be taken into consideration that any exportation of steel to a country outside the EU results in an alteration of the scrap recycling situation in the importing country as well as in the EU. Therefore only an international recycling quota would possess a certain meaning-fullness. Iron and steel scrap have a positive market value and are used in the steel industry. A high recycling quota would therefore be in the interest of market participants and consequently in the interest of the steel industry.

As already mentioned, the Commission also thinks that no additional restrictions or in this case quotas are necessary where recycling is functioning under market conditions. We would therefore like to point out once more that market-economy-based and private in-
Industrial organisations as well as the international competition have led to a high level of the economic and ecological efficiency of steel recycling for a long time and without an environmental legislation. Additional restrictions and quotations would therefore rather be counterproductive.

**Binding guidelines as well as preset recycling targets for iron and steel scrap have to be declined, as quotas have repercussions on the functioning market.**

4. **Waste Prevention (No. 5.2)**

**Quantitative Waste Prevention (No. 5.2.1)**

Generally it has to be pointed out that a functioning resource management is an indispensable basis of an economic operation of the steel industry and therefore sensible from the economic point of view.

Products made of steel, items that are used every day (e.g. washing machines, cars) but also buildings and other structural designs are characterised by an extremely long useful life and durability. Nevertheless they are a reliable part of cycle management and recycling. Due to their extremely long durability, the products of the iron and steel industry are therefore an extraordinary example of a quantitative waste prevention. In this connection, we explicitly appreciate that waste prevention and recycling according to the Commission’s communication are considered to be equally valuable from the economic point of view.

The implementation of new initiatives for waste prevention has to be postponed until the impacts of the European Directive for the Integrated Pollution Prevention and Control (IPPC Directive) which are only just adopted in 1996 as well as the directives on the landfill of wastes, incineration of waste, end-of-life vehicles and Waste from Electrical and Electronic Equipment (WEEE), can be judged sufficiently.

The prevention of wastes in the course of the productive process is implemented to a large degree in many fields of production. It will however also be made use of new, progressive techniques in the future – their profitability provided. One example for the use of new techniques is the fact that iron-containing dust and mud (sludge) is led back to the production via shaft furnace. A result that is ecologically as valuable as the "internal recycling" (= waste prevention) can be achieved by external recycling. In this connection the most economical alternative should be implemented respectively promoted.

**Qualitative Waste Prevention (No. 5.2.2)**

Treatment, utilization and disposal of wastes are subject to a strict monitoring system and to requirements regarding characteristics and possible emissions on a European as well as on a national level. **We therefore disapprove of a linking of waste legislation and chemicals legislation as planned in the framework of the Internet-consultation regarding "Registration, Evaluation, Authorisation of Chemicals (REACH)" for qualitative waste prevention (reduction of the hazardousness of wastes) carried out by the DG’s Environment and Enterprises.**
This connection would signify an excessive amount of regulations that could hardly be justified. Consequently, wastes are to be excluded from the obligation to be registered, independently from the decision whether they are recycled or disposed. In particular, the exclusion from the registration must not be restricted to wastes for disposal, as this would lead to considerable extra costs for the registration of wastes for recycling, which would contradict the principles of the waste management strategy „to recycle wastes“. Additionally, new discoveries regarding the risks of chemicals from the chemicals legislation anyhow would have direct consequences for waste disposal via the classification of wastes according to the European Waste Catalogue (special supervision / obligation to produce supporting documents).

5. Instruments to Promote Waste Recycling (No. 5.3)

Landfill Taxes (No. 5.3.1)

The topic “Landfill Taxes“ shows that the legislative body as well as the responsible authorities have not been able yet to implement the existing legislation and to close down illegal landfills. The calls for landfill taxes that keep coming up therefore aim at an artificial compensation of the disadvantages in costs of expensive recycling techniques. With regard to legal landfills however, this measure could not be justified, in particular in the case that these revenues are used for the closing down of not-legalised landfills.

It has to be taken into consideration that despite all measures for the prevention respectively the reduction of wastes landfilling operation of specific, production-related industrial wastes cannot be prevented completely. Landfill taxes would therefore not be able to execute an influence on those materials towards waste prevention or recycling. Extra taxes would only put further strain on Europe as industry location and would therefore put it at risk. This is also true for various production processes in the iron and steel industry. From the point of view of the iron and steel industry, any further taxation of industrial mono landfills could therefore not be approved of.

In this context we would like to contradict the point of view of several members of the German waste management industry (BDE) who requested the introduction of a landfill tax on all wastes as accompanying measure to the closing down of landfills still in June 2003. This is especially true regarding the use of the revenues from landfill taxes for the closing down of illegal landfills. Contrary to the point of view of the waste management industry, landfill taxes are by no means to be seen as a suitable instrument for safeguarding the future.

In 2000, an enquiry carried out by the Austrian Federal Environment Agency regarding landfill taxes in Europe shows that landfill taxes have already been implemented in several countries. The tax on the disposal of material per Mg fluctuates to a large degree and partly depends on the degree the landfill fulfils the standard requirements. The revenues from landfill taxes are used appropriately for the determination and development of the burden of waste in only one country; in the other cases, if any, the use of the revenues is only restricted generally to general environmental tasks. It is to be expected that a harmonisation throughout Europe cannot be achieved, but this would be a basic condition for the introduction of an environment tax for landfills.
** Tradable Certificates (No. 5.3.3)**

Certificates are not able to achieve neither qualitative nor quantitative improvements regarding an already existing, functioning and unproblematic waste and recycling industry. As already shown by the example of emission trading, the trade with recycling certificates that is brought up for discussion, in connection with the European recycling quotas would increase the administrative effort significantly. At this time it is not possible to predict how far the functioning and unproblematic recycling of iron and steel would be burdened. Additionally it can not be made out from the communication who should be affected by possible recycling certificates.

The use of tradable environment certificates, as discussed in the communication according to Art.3 of the Sixth Framework Programme, would signify a change in paradigms of the EU environmental policy. The ecological and economic impacts would be enormous, not only because of the transfer costs to be expected and could not be estimated so far. Efficient profits could only be achieved with certificates in such fields of the economy – contrary to the trade with scrap - where a lack of competition has not yet led to an efficient market economy. While the use of certificates as minimising instruments for harmful substances can only just be justified, they are not suitable as maximising instruments for the recycling of wastes. Even in the example of the United Kingdom that is mentioned in the communication, the use of certificates exclusively served the purpose to minimise special wastes for disposal, i.e. packing material and organic wastes to be disposed of in landfills.

With regard to this point it has to be pointed out as well that the disposal of specific, production-related wastes in landfills cannot be avoided completely. Contrarily to the aim of the Commission to use certificates as the most cost-effective means for the implementation of environmental targets, with regard to specific, production-related industrial wastes, a reduction is not to be expected. The additional strains due to the trade with certificates would put Germany – and Europe as well – as industry locations at risk. **Any additional burden for the iron and steel industry can therefore not be approved of.**

**Further Instruments**

The best arguments against the instrument "producer responsibility“ are delivered by the Commission’s communication itself. It is perfectly obvious that up to now there is no information whatsoever about the impact of the directives regarding end-of-life vehicles respectively EEE-Directive - Impact on the Environment of Electrical and Electronic Equipment appliances. For the time being, we should therefore adopt a policy of wait and see. Additionally, the long useful life of the iron and steel industry’s products speaks against an expansion of the producer responsibility in this context.

An exchange of information on incentives for recycling programmes between the iron and steel industry and the scrap industry on one side and the non-iron-industry on the other side continuously takes place. We don’t expect any further incentives to have positive impacts on waste prevention and recycling; they are therefore not necessary from our point of view.
6. Harmonization of Recycling Standards (No. 5.4)

The recycling of metals in general and the recycling of iron and steel scrap in particular are subject to the competition on the global markets. Already existing restrictions hindering the free competition have to be dismantled and new ones have to be avoided. In Europe, in many fields there are harmonized legal and technical requirements as well, as for example according to the European Steel Scrap Specifications. The differences however partly consist in the temporary regulations as for example for the new EU member states. To be able to meet the growing demand for recycling materials in Germany, the existing possibilities for bureaucratic mitigations have to be exploited as well as extended. This is especially true in view of the fact that the plants in Germany use high-quality technologies that provably save energy and wastes. Furthermore, it has to be guaranteed that the use of carbon carriers for recycling and as substitute for primary energy carriers is preserved in the steel making process.

7. Improving the Legal Framework on Waste Management (No 5.5)

As already explained accurately in the Commission’s communication, the definition of the term „waste“ is in need of improvement. In this context it is particularly striking that the term waste is still interpreted differently in the various member states – a situation that represents a particular obstacle for the trade with secondary raw materials such as scrap.

In this context we refer to the document on hand, published by the UNICE, the “Proposal of the Federation of German Industries for an amendment to Council Directive 91/156/EEC amending Directive 75/442/EEC on Wastes” (“Vorschlag des Bundesverbandes der Deutschen Industrie für eine Änderung der Richtlinie des Rates 91/156/EWG zur Änderung der Richtlinie 75/442/EWG über Abfälle”), which is supported by the iron and steel industry.

Endemann
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