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November 21, 2000

**Eco-audit and deregulation in domestic law at the level of
legislation and implementation pursuant to
Council Regulation (EC) 1836/93**

Summary

A. Research Objectives

There have been requests for some time in politics and in industry to relieve EMAS registered companies from environmental regulatory requirements particularly in the area of permitting and inspections of industrial installations either by changing laws or by reducing the burden of implementation of regulations. The research project investigates which administrative and legislative consequences can be drawn from the experience with the eco-audit system concerning the attainment of deregulation objectives.

The intention is to outline the options and premises of regulatory relief without jeopardizing the present level of environmental protection under existing EC-regulation.

B. Issues

In 1998, the Federal Government and the Laender governments presented proposals for regulatory relief in the area of air pollution control, noise abatement, water and waste management.

These proposals have partially been implemented by the Laender through administrative guidelines or agreements with industry. The study focuses on proposals made by the Federal Government and Laender governments as well as on proposals of regulatory relief for permitting procedures made by the authors.

From the perspective of influencing company behavior these proposals may be divided into the following six categories:

- preparation of adequate application material for permit procedures,
- compliance with substantive environmental requirements when planning and designing industrial installations,
- compliance with substantive environmental requirements when operating industrial installations,
- self-monitoring of companies,
- management structures and processes,
- information policies and management.

These proposals were subject of this study.

Research questions:

- Is EMAS equally effective as regulatory command and control regulations in making registered companies comply with the environmental regulations?
- To what extent are the deregulation proposals likely to bring about regulatory relief for registered sites?
- To what extent are these deregulation proposals compatible with German and EC law?
- To what extent can the implementation of these deregulation proposals be recommended from the perspective of environmental policy and the legal system?

C. Research Concept

1. The study contains an empirical analysis of the regulatory relief potential of the deregulation proposals as well as a functional comparison of the control effectiveness of EMAS and the relevant environmental regulations. Furthermore, the study compares the legal structures of EMAS and national environmental law, and determines the limits of EC law and the Federal Constitution for regulatory relief measures. The study ends with a

political evaluation of the deregulation proposals, and develops recommendations for regulatory reforms.

2. The empirical analysis focuses on the concept of “functional equivalence”. While this concept is used in an undifferentiated way in the debate on deregulation, this study develops the theoretical foundations of the concept based on organization theory, and provides criteria for a functional comparison between traditional regulatory controls and EMAS based controls. The starting point for the operationalization of the concept of functional equivalence is the idea that the partial renunciation of governmental controls, including the threat of coercion, should be compensated by incentives which motivate EMAS registered sites to voluntarily comply with environmental law.

In addition to compliance with environmental law, companies have to master numerous other problems, which threaten their survival in market competition. The problems of company survival comprise the need for

- continual adjustments to new economic and technical developments along with the maintenance of calculable relations to external actors (external adaptation),
- the promotion of internal co-operation (integration) and
- the efficient management of scarce administrative, financial and natural resources (resource efficiency).

To the extent that EMAS does not only formally serve legal compliance with environmental regulations, but also contributes to the solution of survival problems, EMAS does provide companies with incentives for lawful behaviour which compensate for the partial loss of coercive government controls resulting from deregulation. Therefore, in this study, the existence of functional equivalence between command and control regulations and EMAS based controls is assumed, if in companies (1) both control instruments produce, from a legal perspective, the same output of activities, the same required procedures as well as the same conditions of planning and plant operation, and (2) EMAS improves the management of survival problems such as external adaptation, integration and resource efficiency.

3. The empirical analysis is based upon 47 expert interviews, which were conducted in six Laender of the Federal Republic with EMAS registered companies, environmental verifiers, Chambers of Industry and Commerce, and competent public authorities. Additionally, a standardized written survey was conducted comprising all EMAS registered companies,

environmental verifiers, and registration bodies in Germany. The return rates of the questionnaire were 57 % with companies, 53 % with environmental verifiers, and 72 % with registration bodies.

D. A comparative perspective on regulatory structures of command and control regulations and EMAS

1. Both systems – command and control regulations and EMAS – are independent of each other with regard to regulatory form, regulatory structure, and control elements. Both systems also differ fundamentally with regard to their control mechanisms.
2. Command and control regulations and EMAS attempt to achieve the same objectives with different means. The objectives are
 - to make companies comply with environmental legal requirements,
 - to improve environmental protection.
3. Regulatory structure and regulatory objectives of EMAS suggest that EMAS-registered sites comply with environmental legal requirements in the same way (or better) as sites which do not participate in EMAS. In both cases, the company is the addressee of the basic legal obligations or the environmental requirements.
4. Regulatory structure and regulatory objectives of command and control regulations and EMAS ensure that supervision and controls can be equally effective under both systems. This means that the results of EMAS controls and government controls can be functionally equivalent.
5. Accreditation requirements for environmental verifiers as well as supervision of accredited environmental verifiers by the competent authorities ensure that environmental verifiers can fulfil their functions with professional competence, independence and the required neutrality. In other words, all environmental verifiers have comparable qualifications.
6. The basic differences between command and control regulations and EMAS do not preclude, in practice, partial congruence of the two systems with regard to their control mechanisms. For instance, there are areas where both systems overlap, and where EMAS strengthens existing elements in command and control regulations which are intended to influence company behaviour in an indirect way, e.g. in some areas of company organization, and public participation. On the other hand, compliance with environmental command and control regulations is, at the

same time, an element and an objective of the control mechanisms of both systems.

7. The provisions and structures of command and control regulations are particularly indispensable for effective preventive controls. The strength of environmental command and control regulations is reflected by the capacity to employ coercive measures which provide protection from imminent dangers, and which limit actual damages. In contrast, the advantage of EMAS is reflected by its capacity to indirectly motivate companies to continuously improve their environmental performance, particularly, with regard to precautionary measures. At the same time, EMAS control mechanisms avoid unnecessary coercion, work result-oriented, provide incentives for environmental performance beyond legal requirements, and take into account the site-specific task and cost structures.
8. Given the validated company commitment not only to comply with environmental regulations at the site but also to continuously reduce adverse environmental effects of the site, the intended effects of EMAS exceed the intended effects of command and control regulations. EMAS aims at providing an "ecological added value" which may increase environmental protection from a macroeconomic perspective.

E. Major findings of the empirical analysis

1. The relief potential of a given deregulation proposal is evaluated as "high" if, at least, two thirds of the respondents of the written company survey estimate the relief effects of the proposal, provided it will be realized, as "very great" or "rather great".

The relief potential of a proposal is evaluated as "medium" if, at least, one third of the respondents concerned estimate its future relief effects as "very great" or "rather great".

The relief potential of a proposal is evaluated as "low" if less than 33 % of the respondents concerned estimate its future relief effects as "very great" or "rather great".

2. More conservative criteria are applied to the evaluation of the prospective control effects of EMAS. This is because the assessment of control effects provides the basis for a functional comparison of EMAS and command

and control regulations, and, hence, for possible recommendations concerning the realization of certain deregulation proposals. The control effectiveness of EMAS is evaluated as “high” if, at least, three fourths of the respondents of the written survey of environmental verifiers indicate that – depending on the given proposals –

- the company personnel “always” or “often” has the professional competence and technical equipment to ensure legally prescribed conditions at the site,
- the provisions of the environmental management system “always” or “often” ensure legally prescribed procedures and output of activities as well as required plant conditions,
- regulatory violations will “certainly” or “probably” be detected by environmental verifiers at reasonable costs,
- it is “certainly” or “probably” possible to repeal regulatory requirements concerning company organization without jeopardizing proper self-monitoring at a site.

The control effectiveness of EMAS is evaluated as “low” if less than 50 % of the responding environmental verifiers make these assessments.

The quantitative evaluation of EMAS control effectiveness is supplemented by the results of the expert interviews.

3. The functional comparison between the effectiveness of command and control regulations and EMAS based controls applies the aforementioned evaluation criteria as far as EMAS is concerned.

The evaluation of the effectiveness of command and control regulations is based on the interview results and practical experience. The effectiveness of these regulations, however, is not evaluated in absolute terms but only in relation to the effectiveness of EMAS based controls. This means that the evaluation is confined to the observation of whether or not command and control regulations appear to be “less effective”, “equally effective” or “more effective” than EMAS based controls.

4. The survey results concerning (1) the assessment of the relief potential of the deregulation measures proposed by the Federal Government and the Laender governments, and (2) the evaluation of the effectiveness of EMAS based controls in the context of these proposals are worth noting that companies assess the relief potential of these deregulation proposals only as “low” or “medium”.

The effectiveness of EMAS based controls in the area of self-monitoring is evaluated as “low” by environmental verifiers. This result may be explained by the fact that the professional and technical prerequisites for the self-monitoring of emissions and ambient environmental quality, calibration, functional and other technical checks are not being “produced” by EMAS but are rather based on company size.

In the remaining areas of deregulation proposals, the effectiveness of EMAS is generally evaluated as “medium” or “high”.

5. In addition to the deregulation proposals by the Federal Government and the Laender governments, the study also covers regulatory relief measures which were proposed for industrial permitting procedures under the 1974 Act on air pollution control and noise abatement (Bundes-Immissionsschutzgesetz). The realization of these proposals would entail structural changes of the existing law on industrial permitting. The proposals consist of the “framework permit” advanced by the “Schlichter Commission”, and the “permitting audit” developed by Bohne.

The “framework permit” restricts the large scale of controls by the competent authorities with respect to all permit requirements within the meaning of BImSchG sections 5 (1) and 6 (1). In contrast “the permitting audit I” restricts regulatory controls only with respect to the permit requirements of “best available techniques” under BImSchG sections 5 (1) No. 2 and 6 (1).

The “permitting audit II” adds a narrow scheme of on-site emissions trading. The “framework permit” enjoys the highest approval rates of all deregulation proposals by companies. Apart from that, relief potential and control effectiveness of these proposals are evaluated as “medium”.

6. The results of the functional comparison regarding the control effectiveness of EMAS and command and control regulations suggest that there is no functional equivalence in the area of self-monitoring. The same observation can be made for the deregulation proposals regarding the functions of the so-called “company manager for environmental protection”, and the abolition of automatic remote emission monitoring.

The EMAS environmental statement is inadequate to accompany a permit application under the 1974 Act on air pollution control and noise abatement.

With regard to the “framework permit”, there is no functional equivalence between existing controls of permit applications and EMAS.

As for the other deregulation proposals, functional equivalence between EMAS based controls and command and control regulations may be assumed.

F. Legal evaluation

1. Although international conventions, EC legislation (IPPC-, EIA- and Seveso II directives) and the German Basic Law restrict the options of deregulation, the legislative leeway is still reasonable wide.
2. There are neither specific obligations to regulate nor specific prohibitions to deregulate which can be deduced from primary EC law, particularly from the principle of precaution.

Secondary EC law provides leeway for deregulation in the area of industrial permitting and inspections (e.g. larger number of installations for which no permit is required than under national legislation, reduction of detailed examinations of permit requirements, and of the volume of required application materials). The Seveso II directive allows regulatory relief measures for registered sites.

3. Under the Basic Law, the government has the final responsibility to ensure legal compliance (see, for instance, Art. 2 (2) 1st sentence and Art. 20a of the Basic Law) which restricts the options of deregulation. This final responsibility must be reflected in basic command and control regulations, particularly in the area of preventing imminent dangers.

EMAS is the classical example of a system of “regulated self-regulation”. In this system, the final responsibility of government to guarantee legal compliance is ensured, first, by substantive and procedural feed-backs with command and control regulations, and, secondly, by a functioning system of government influence and controls at different levels in a differentiated system of cooperation between public authorities and other actors who enjoy a certain degree of autonomy under the Eco-Management and Audit Act of 1995.

4. A specific normative program regarding the scope of controls in industrial permitting procedures cannot be deduced neither from Art. 2 (2) 2nd sentence and Art. 20a of the Basic Law nor from certain constitutional obligations based on these articles. Legislators have wide and constitutionally protected discretion which allows or even requires differentiated regulations.

5. The government may fulfil its obligations of environmental protection based on Art. 2 (2) 1st sentence and Art. 20a of the Basic Law not only by promulgating command and control regulations but also by establishing (supplementary) systems of indirect controls such as the eco-management and audit scheme.
6. Limits to command and control regulations result from the civil rights of entrepreneurs (Art. 5 (3) 1st sentence, Art. 12 and Art. 14 of the Basic Law) as well as from the constitutional principle of reasonableness.
7. The deregulation proposals made by the Federal Government and the Laender governments are not subject to concerns under EC law or the constitution.
8. The “framework permit” proposed by the Schlichter Commission is legally questionable under EC law (see Art. 6, Art. 8 in conjunction with Art. 3, 9 and 10 of the IPPC directive). On the other hand, there is still some legal leeway under EC law – apart from the absence of permit requirements for certain installations or groups of installations – to introduce, a certain degree of regulatory relief into permitting procedures, and to shift, in a legally binding way, parts of the examination program regarding permit requirements into the eco-management and audit scheme.
9. The characteristics of the “permitting audit I”, which change the structure of the existing permit system, do not violate EC law or the Basic Law. The “permitting audit II” is compatible with Art. 9 (4) 1st sentence of the IPPC directive.

G. Political evaluation

1. The political evaluation of deregulation proposals must take into account the changes of basic political conditions which have occurred since the eighties. These changes include the globalisation of the economy, risks of losing societal consensus on what constitutes the common welfare in a society shaped by multi-cultural influences, and the Europeanization of hitherto domestic policy areas.
2. Deregulation measures based on EMAS offer new options for the economy and government, but they also generate new risks. Industries have a bias for emphasizing the opportunities of new activities, while environmental politics and environmental administrations tend to see only risks. However, both – opportunities and risks – must be considered and balanced.

3. When balancing the opportunities and risks of deregulation in environmental law, the opportunities appear on the “credit side” and include

- the improvement of environmental performance of companies which go beyond the level of command and control regulations,
- strengthening environmental awareness among companies and the public,
- regulatory relief of public authorities in the implementation of environmental laws, and concentration of scarce administrative resources on strategically important tasks,
- strengthening the competitiveness of companies and their capacities for innovation,
- initiating environmental political activities in order to strengthen German influence on the development of European environmental law.

The risks have to be entered on the “debit side” and include

- decrease of environmental performance,
- reduced legal certainty and calculability of investments for companies in comparison to the present situation,
- additional conflicts which consume scarce administrative resources,
- loss of public trust in the legality of government actions, and in industries complying with the law.

Sensible deregulation measures in conjunction with EMAS represent a small though not risk-free step towards adapting environmental law to new problem situations. This step requires to put more trust in the realization of opportunities than in the occurrence of risks resulting from EMAS based deregulation measures. This confidence is empirically founded as the research findings demonstrate. It is based on the functioning of the eco-management and audit scheme, and not on the goodwill of participating persons. It is system-based confidence, and not person-related trust.

Consequently, one may conclude that the opportunities provided by EMAS-based deregulation measures exceed their risks.

4. Industries tend to support deregulation measures only if the legal certainty is not diminished which is guaranteed by command and control regulations. In the written survey, companies were asked to position themselves on a ten point-risk scale ranging from (1) “highest degree of restrictions on freedom of

actions with highest legal certainty” to (10) “highest degree of freedom of actions with highest entrepreneurial risks”.

It is not worth noting that the majority of companies positioned themselves fairly accurately in the middle of the risk scale with a mean value of 5.5. The highest value indicating the willingness to take risks is 6.2 and hardly higher than the mean.

These figures only refer to EMAS-registered companies and not to all German industries. Considering the generally progressive public image of EMAS-registered companies, the conclusion seems justified that there is a considerable discrepancy between the public self-portrait of industries as risk-taking “global players” and the willingness of company personnel at the “front line” to actually take risks.

Furthermore, there is a notable contradiction between demands for deregulation as expressed at high management levels in industries and politics, on the one hand, and the reserved attitude towards deregulation measures, on the other hand, which prevails in industries and politics at the levels of middle-management. These findings suggest that deregulation is, first of all, a problem of how to change attitudes, and of political leadership.

5. The following strategy is recommended for introducing deregulation measures based on EMAS:
 - (1) Command and control instruments should be primarily employed for the prevention of imminent dangers.
 - (2) In the areas of company information, company organization, inspections by public authorities, and environmental precaution, command and control regulations should be primarily confined to the functions of a “subsidiary order” where public authorities only intervene if EMAS has failed in a given case. This means that EMAS-registered companies should be relieved from command and control requirements if functional equivalence exists between these requirements and EMAS.
 - (3) In the context of transposing the IPPC directive, EMAS-registered companies should get the option to submit EMAS documents as application materials in order to demonstrate energy efficiency within the meaning of Art. 3 lit. e IPPC directive.
 - (4) The permit obligation for industrial installations in column 1 of the 4th BImSchV should be reduced to the level prescribed by EC legislation.

As far as industrial installations in column 2 of the 4th BImSchV are concerned, the permit obligation should be confined to those installations which are not subject to EC legislation but represent a non-negligible medium or low risk potential according to the present state of the art.

- (5) Operators of installations in column 2 of the 4th BImSchV, and of landfills within the meaning of section 31 (3) of the Federal Recycling and Waste Management Act should have the option to ask for dispensation from the obligation to obtain a permit.

This option is contingent upon extending the applicability of the 1990 Act on strict civil liability for environmental damages to these projects along with the introduction of a mandatory insurance.

One cannot predict to what extent companies will make use of these new liberties. In any event, environmental politics would strengthen those actors in industries who prefer the risks of autonomy over the legal certainty of command and control regulations. Last but not least, this strategy would have the political side-effect that environmental politics could move out of the defensive position, where they have been caught during the last decade.

- (6) The future of EMAS will be determined by the realization of deregulation measures. The present numbers of EMAS participation show a decreasing tendency. Sensible deregulation measures would provide incentives to participate in EMAS. This assessment is supported by expert interviews.

Assuming that a considerable increase of the number of EMAS-registered companies would also increase the level of environmental performance from a macroeconomic perspective, and assuming that this result is politically desirable, it should be evident that the attractiveness of EMAS participation must be improved. This can be achieved through deregulation measures which do not only affect the "surface" of environmental performance. Consequently, the proposals which would entail structural changes of the existing permitting law gain significance for the future of EMAS.