MOVING BEYOND COMMAND-AND-CONTROL

Reflexivity in the Regulation of Occupational Safety and Health and the Environment

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Direct regulation or command-and-control strategies by many policy-makers are considered to be unsuccessful in changing the conduct of companies threatening the safety and the health of their workers and polluting the environment. To improve occupational health and safety and the environment, they therefore stimulate self-regulatory policy strategies to make companies comply with social regulation. The relationship between external and internal modes of (self-)regulation is a subject gradually gaining the attention of researchers exploring alternatives for command-and-control regulation. But in a functionally differentiated society integration and coordination may be difficult to realize. The economic subsystem fails to acknowledge its social identity and, therefore, appears to be blind for its negative performance on the environment and the work place. The authors of this paper argue that moving beyond command-and-control can be feasible and desirable, at least to a certain extent, but that pitfalls are omnipresent. Solutions to several `regulatory dilemmas' are to be looked for. Sound empirical studies as well as a guiding theory are necessary. For this purpose the key concept of `reflexivity' is suggested, referring to the economic organisation's relationship with itself. In the paper the practical usefulness of this theoretical concept is explored against the background of regulatory practice in the areas of occupational safety and health and the environment. It is concluded that a mode of reflexive administrative law requires a `negotiating government', which adopts a mixture of strategies and learns to cope with issues like third party interests, access to information and enforcement.

I.   INTRODUCTION

Improving industrial performances in regulatory arenas such as occupational safety and health and the environment, by delegating government authority to industrial associations and individual firms is a policy tool government only recently has become aware of. This delegation could discharge government more or less of the burden of controlling the economic system, which in modern complex societies is hardly feasible and in fact has led us to the well-known crisis of the interventionist state and the crisis of control. Moreover, it could also encourage the regulated to be more creative and innovative in promoting compliance with policy objectives, enlightened self-interest for industry playing a more dominant role. Improving relationships between government and industry is being recognised by policymakers - though not entirely by environmentalists and workers - as a succesful way of attaining policy objectives. These goals may be far better achieved by means of conditioned self-regulation or cooperative regulation, than by deterrence-policies and adversarial strategies towards industry (Winsemius 1986; Aalders 1993; Teubner, Farmer & Murphy 1994). Gunningham (1995: 58) stresses that self-regulation contemplates ethical standards of conduct which extend beyond the letter of the law. Therefore it may significantly raise standards of behaviour. More and more governments seem to realise that the tremendous efforts of legislative activities in the past years have not brought about the expected results, because implementation and enforcement of this legislation somehow seem to be incapable of achieving an acceptable degree of compliance.[1]

Although criminal prosecution and administrative fines may have an impact on the conduct of potential violators of social regulations (Gray & Scholz 1993), obviously more is (or rather other devices are) needed to change industrial attitude and behaviour in matters of safety and health and environmental management. Some advocates of `good old' law enforcement and instrumentalism still might not be convinced by the findings in socio-legal research literature, and might not renounce their plea for a

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strategy of sheer deterrence. However, such a strategy presupposes the following:

(1)   the possibility of legal prescriptions covering comprehensively the majority of occupational safety and health problems and the major situations that are harmful and dangerous to the environment;

(2)   the frequent visiting and thorough examination of all enterprises and institutions by government inspectors;

(3)   the possibility of objective and ready determination of discrepancy between norms and reality;

(4)   inspectors' willingness to act as `policemen' (inspectors' term for a non-persuasive and non-accommodative conception of work);

(5)   an enduring change in corporate behaviour and mentality in view of or as a result of prosecution or litigation;

(6)   the efficient and effective processing of safety and health and environmental cases by the Prosecutor's Office and the courts.

These presuppositions are either illusory or are contradicted and weakened by present practice. In fact, among experts there is a growing consensus that, as Spitzer (1992: 19) puts it `preference for a deterrence strategy has more to do with ensuring accountability to legislatures, the public and industry than with its ability to achieve compliance.' Ayres and Braithwaite (1992: 110) go as far as to argue that because rules under a system of *"enforced self-regulation"* are particularistic, "an agency charged with approving those rules need not account for all of the loophole-opening strategies used by different companies to duck their regulatory responsibilities".

Nevertheless, the trend[2] in regulatory policy to shift from direct and stringent government regulation towards more flexible, lenient, and accomodative control mechanisms[3], such as self-regulation and co-regulation, has important consequences for the enforcement of corporate regulation, not yet fully understood or considered in most government bureaucracies. In order to study the socio-legal consequences of these phenomena not only a shift of focus from government action towards business action is needed, but also a greater understanding of what happens in government-business relationships. This requires both an adequate, guiding theory and more empirical studies on this subject. A recently started comparative research project of the external regulation of `self-regulatory' policies in occupational safety and health and environmental management systems in Dutch companies is focusing on government-business relationships and the consequences for state-functions in industrial democracies (Aalders & Wilthagen 1994). These considerations also bear upon the nature and methodology of the socio-legal study of regulatory issues.

In this article we first account for our choice to compare the fields of the work environment and the so-called `external environment' and we provide a review of developments and tendencies in legislation and policies on the one hand and shop floor practice in both fields on the other (II). Consequently, we suggest a reflexive theory of law as a possible guiding theory (III) and we propose a number of reflexive strategies for a negotiating government with respect to the phenomenon of business' self-regulation (IV). Finally we draw some conclusions about the social study of reflexive law and regulation (V).

II.   REGULATION AND SELF-REGULATION IN TWO ARENAS

For our argument we compare two fields of regulation, dealing with the same sort of industrial settings, but in essence differing rather significantly in character. Important differences can be identified among others in the history of self-regulation in these fields. At least the following factors have to be taken into account:

(1)   The interests, objectives, and structure of the actors - the regulated (`target'-)groups - are much more clearly defined in occupational safety and health than in the area of the environment. The

latter comprises a functionally much more differentiated regulatory field than safety and health. Individuals or groups in the domain of the environment find it hard to identify their role in polluting the environment and are not easy to be held responsible for deterioration of environmental qualities. Safety and health are very much the affair of employers and employees. Care for the environment should be `the concern of everyone'.[4]

(2)   Consequently, the formulation of environmental policy is very diffuse, scattered and dispersed over several laws and by-laws, although in the Netherlands some integration has been achieved with the new Environmental Management Act (*Wet milieubeheer*) of 1993. Safety and health legislation, on the other hand, is often characterized as `overregulation' but still considered `manageable' by the competent authority;

(3)   Also, the competent authority regarding safety and health regulation, at least in the Netherlands, is much more centralized, whereas the authority for environmental policy implementation is located in the provinces and the municipalities;

(4)   The legal requirements of safety and health regulation are prescribed in laws, especially in general rules, and in the much more detailed branch-oriented Safety Decrees (soon to be integrated in one Work Environment Decree), which does not give much leeway for officials or the management system in the implementation phase. On the other hand, environmental legal instruments show quite a variety, from general rules to financial instruments and covenants, the permitting system being the dominant factor, which leaves much discretion for officials in the implementation phase;

(5)   Industry has been spending a lot of energy and resources to develop in-company management systems for the environment on a voluntary basis, while, rather passively, it has had a long look at the development of safety and health systems.

(6)   Environmental damage is sometimes very hard to assess, not only on a national, but also on an international basis. There are obvious differences between safety and health and the environment as political issues. Pollution of the environment may have transboundary consequences. Such geographical conditions hardly play a role in safety and health regulation (although the outsourcing of dangerous activities presently has acquired an international dimension). On an European level it seems absurd to impose the same emission limits on a plant miles away from anywhere in the middle of Greece as on a factory in the Netherlands's heavily industrialized Rotterdam harbour area.

(7)   Occupational safety and health problems are more politically visible than the environment. OSH has always been the inherent responsibility of the enterprise itself, whereas the dangers of degradation of the exterior environment became an issue as a consequence of outside influences. The fact that in-company safety and health systems, though, are regulated by government legislation and environmental management systems are not, could be considered one of those paradoxes public administration often has to cope with.

We will now turn more chronologically and in more detail to the tendencies and developments in both fields.

A.   THE WORK ENVIRONMENT

The problem of occupational safety and health can be said to confirm Ulrich Beck's picture of the *risk society*.[5] Up to the 1960s a clear consensus could be noted in the regulation of occupational safety and health. Detailed standards and regulations were to be enforced by external, in most cases governmental enforcement agencies. Without exception these agencies had only limited capacity. This model and practice of regulation reflected the distinctive style and ethos of autonomous law (see Nonet & Selznick 1978). Rees (1988: 15) characterizes autonomous law as `a model of rules (..) in which legal energies are devoted to ensuring close accountability to those rules.' No doubt, enforcement practice and actual

strategy varied across nations. In both the United Kingdom and the Netherlands, with their tradition of corporatism, reliance on the *force* of law was supposed to be less predominant than in the United States, where federal legislation on safety and health was enacted as late as 1970.

Reconsideration of the `command and control' or instrumental model of regulation started at the end of the 1960s. In 1972 the English Committee on Safety and Health at Work (Robens Committee 1972) published its influential report that led to the 1974 Health and Safety at Work Act. The report criticized the traditional model of regulation and put forward as the most fundamental conclusion of the Committee's investigations:

> `There are severe practical limits on the extent to which progressively better standards of safety and health at work can be brought about through negative regulation by external agencies. We need a more effectively self-regulating system (...) The objectives of future policy must therefore include not only increasingly the effectiveness of the state's contribution to safety and health at work but also, and more importantly, creating the conditions for more effective self-regulation.' (Robens Committee 1972: 12).*

The report rejects the view that working conditions can be effectively regulated in a top-down manner by detailed legal prescriptions:

> `... too many employers, managers and workers are still inclined to look rather too much to state intervention and prescriptions, and rather too little to their own interests, responsibilities and efforts.'*

The 1980 new Dutch Working Environment Act (*Arbeidsomstandighedenwet*) indicated a new era in the legal protection of occupational safety and health in the Netherlands. Co-determination rights for employees had become a politically acceptable cause. The new - broad - concept of `humanization of labour' was introduced, including not only occupational safety and health but also workers' well-being. With respect to this incentive for legal change, Dutch politicians and policy makers leaned strongly (as before) towards the Scandanavian model (notably the 1977 Norwegian Act on working conditions). After 1977 a second motive, `rolling back the state', gained importance. Simultaneous with an economic crisis, the view of the state's role in society and economy underwent a change. With regard to safety and health policy, this led to pressure on the self-reliance of employers and employees; taking a place at the side-line would suffice for the state. These ideas were imported from the United Kingdom.

This does not mean the state thereafter really took a place at the side-line. On the contrary, as mentioned by Vogel (1989), deregulation in the eighties did not amount to less legislation, but rather to more regulation and reregulation. Of course the state continued to dominate society while intervening in the market whenever deemed necessary. Indeed, one could argue that methods of self-regulation began to operate no later than 1990 and even then as islands of discretion in a sea of specific regulatory requirements.

Like the 1974 Health and Safety at Work Act in Great-Britain, the new Dutch Act stresses the importance of business' self-reliance. Tripartite structures were created. In the United Kingdom employers were required to set up safety committees and allow for safety consultants, whilst in The Netherlands the powers of already existing work councils were expanded in the area of workplace safety. Another similarity is the statement of general principles and duties of care rather than precise definitions. The aim is to make safety and health policy an integrated part of general business policy. This idea of systematic occupational safety and health care was underpinned by the so-called European Framework Directive (stating the obligation of risk assessment) which had to be implemented by EU-member states on the 1st of January 1994. From this date onward, it can be argued that the existing and new provisions of the Work Environment Act, as a whole, form a legal duty for the employer to establish an In-Company Safety and Health Management System (ICSHM-system).

Implementation practices

From a socio-legal point of view it is important to confront these images of changes and developments in the statutes with law-in-action and regulatory practice. Evidently, there are two ways to shed light on the impact of the new legal and regulatory philosophy. One is to attempt to assess the level of business' self-regulation in the field of occupational safety and health, after the introduction of the new legistation. The other possibility is to consider the actual function and success of regulatory agencies.

Assessing the impact of the new regulatory philosophy with respect to the level of self-regulaton is difficult because of the absence of fully adequate indicators and the problem of *ceteris paribus* (unaltered conditions). For Britain, Genn (1988; 1993) studied intensively a sample of forty enterprises varying in size, risk and unionisation of the workforce. She concludes that the empirical basis of the Robens philosophy is limited. The Robens type of self-regulation was shown to operate only under a very narrow range of conditions, though the strategy is in fact applied throughout. It is most successful in companies that have a `natural interest' in safety and matters, due to the high risk of the production process or the social `visibility' of the company. Genn argues that in certain situations more vigorous enforcement is required in order to obtain a significant and enduring change in the approach of employers to compliance with health and safety regulations.

Dawson *et al.* (1988) report on a comprehensive study on the nature and effect of the Health and Safety at Work Act. They conclude that effective self-regulation requires people at work to be actively involved in the identification of hazards, the prescription and implementation of controls and the (often neglected) maintenance and monitoring of standards and activities. Three elements are identified as crucial: knowledge, capacity and motivation. The roles played by safety specialists and workforce representatives, but first and foremost by senior executives and line managers are identified as critical. Self-regulation at the local level seems to depend strongly on conditions that have to do with the business cycle (recession), the structure of industry and employment (small-firm size, subcontracting, the increase of part-time and temporary employment) and changes in trade union organisation (declining levels of union membership). Dawson *et al.*'s overall conclusion matches Genn's: self-regulation of safety and health has clear limits; without it being externally `forced' on them, people will often not take matters of safety and health seriously, until direct contact with death or severe injury reminds them temporarily of the need to do so.[6]

In the Netherlands a few studies have been carried out to evaluate the impact of the new legislation, without focusing as strongly on the concept of self-regulation as the British studies have. These studies of both industry and governmental services make clear that safety and health generally are not `hot issues' to business. The new legislation did not change that. Most employers and employees have a rather limited knowledge of the law. Small firms in particular find great difficulty in developing safety policies, due to their short-term orientation, their focus on production and the absence of safety and welfare specialists (Reubsaet, et al. 1988; Warmerdam & Reubsaet 1985; Andriessen et al. 1985; Warmerdam, et al., 1993).

A second starting-point for attempting to assess the empirical significance of the new philosophy of self-regulation and self-reliance is to consider the actual function, strategy, problems and successes of the regulatory agencies. Wilthagen (1993) conducted a comprehensive participant observation study of 238 labour inspectors' visits to firms and institutions in a variety of sectors of industry (including the metallurgical industry, the building trade, the chemical industry and the medical and social services) in three areas of the Netherlands (between october 1990 and april 1991). A follow up study was conducted to assess (on the basis of files and interviews with inspectors) the extent to which the firms and institutions that had been visited complied with the inspector's requirements and wishes. The following conclusions can be drawn from the research evidence. The basic patterns in the regulation of safety and health problems result from inspectors' motives and notions concerning efficacy, reasonableness and job satisfaction. These elements are strongly interwoven. The enforcement style of labour inspectors can be characterised as non-legalistic, `situational' and accommodative. The enforcement process has a rather *horizontal* interaction structure, leaving much room for negotiation and discussion with the firm's management and, less importantly, workers. Inspectors are highly dependent on employers' information

and cooperation. All in all, labour inspectors are successful, but within clear limits: the scope of problems they address and are *able* to address is limited and so is the number of visits. Substantial effects are not likely to come about.

The results of this Dutch study are consistent with studies of regulatory enforcement styles in regard to health and safety in the United Kingdom and most other western countries, with the exception of the United States. Field-inspectors have the disposal of strong discretional powers. Most employers do not strongly oppose reforms, at least not overtly and directly. Therefore, inspectors try to secure compliance by giving advice and assistance and by negotiation. Problem-solving rather than strict compliance is their main aim. The use of legal `force' is usually successfully avoided, in favour of bargain and bluff in the shadow of the law. Confronted with major problems (requiring costly investments) inspectors seek to establish and maintain a working relationship with managers, frequently visiting the firm and carefully `cherishing' and reinforcing gradual changes and improvements. It is suggested that this persuasive style of regulation is not less effective than the more antagonistic and legalistic style which traditionally is seen as the American way of enforcement (Wilson 1985; also: Vogel 1986).

A few years ago the Dutch Labour Inspectorate announced it will focus its activities - both inspection and enforcement - on the `system level' within companies. In practice, the potentials of systems control, as a method of intervention at the organizational level, aimed at generating enduring and preventive concern for safety and health matters within companies, has not really been flourishing. Inspection and enforcement routines so far do not display a significant change, systems control being to a large extent still a matter of `semantics'. Inspectors get on doing `business as usual' (with encouraging exceptions in e.g. the sector of health care). Particularly the older generation of inspectors, who used to operate as `lonely hunters', finds great difficulty in adopting the new approach.

B. THE EXTERNAL ENVIRONMENT

Government legislation and regulation of industrial environmental management in the last decades could be described as `autonomous law'. Implementation and enforcement of environmental law was oriented towards command-and-control-strategies. Already in 1875 the introduction of the `*Hinderwet'* (Nuisance Act) was an attempt to prevent the risks of industrial activities for their immediate environment.

In 1982 a centre-right Cabinet came into office in the Netherlands. Former McKinsey management consultant Pieter Winsemius became cabinet minister of Housing, Physical Planning and the Environment. He urged industrial associations to promote internal environmental management and environmental auditing among their members. Winsemius (1986) introduced the concept of "verinnerlijking" (i.e. internalization; see for a critical analysis Hajer 1994) in politics and encouraged an environmental discourse and partnership instead of antagonizing companies by calling them `polluters'. In 1985 the Dutch association of employers VNO-NCW published a report on environmental management in companies. Some time later a mixed committee of government and industry representatives guided a number of experiments on environmental auditing. The outcome was reported in 1988 and led to a governmental paper on In-Company Environmental Management (ICEM) (Netherlands Parliament 1989; Aalders 1993). In it a new policy was outlined which called for the introduction of ICEM on a voluntary basis for approximately 10.000 big-size enterprises. The remaining firms, about 250.000, could do without some requirements set for the 10.000 category, like an environmental manager, and an audit. The government made it its aim to establish that in 1995 most firms should have an ICEM or at least could show that they had made progress in this field. If by then this were not the case, legislation would be considered. An extensive government programme for stimulating and funding experiments for developing ICEM was executed. Evaluation of ICEM, comparing the progress of environmental management in firms in 1991 and 1992, made clear the policy-objectives (an operating ICEM in 10.000 of the bigger companies in 1995) would not be attained

(Tussenevaluatie 1993). In response, government dismissed this obligation, but all the same expressed its satisfaction with the results of the industry so far.

In the meantime the Netherlands government had to comply with the obligation of the EC-regulation "allowing voluntary participation by companies in the industrial sector in a Community Eco-Management and Audit Scheme (EMAS)" (Council Regulation 1993). By 1995, in about 35 cases ICEM had been verified on the basis of BS 7750 (the standard designed by the British Standard Institute) by formally recognised and validated auditing-bureaus (e.g. Lloyd's Register).

Looking at the history of ICEM and the role played by both government and industry, we may conclude that the policy of developing internal environmental management systems has very much been stimulated, even conditioned, by government action. Although the industry initiative could be called self-regulation, it is at the same time a `programmed' or `enforced' form of self-regulation. It is not a bottom-up, but rather a top-down exercise of government, even if `co-regulation' or `cooperative regulation' is intended. These self-regulatory activities result from three major socio-political phenomena:

(i)   The demands of industry for deregulation of environmental legislation during a period of economic crisis and the positive reaction of the government to these demands.

(ii)   The deficient enforcement of environmental rules and the quest of the Department of Environment for policy instruments other than direct regulation: e.g. the enhancement of communicative instruments (negotiated regulation).

(iii)   The almost simultaneously launched initiatives, both by the central employers association and the Department of Environment, to stimulate ICEM, which as we shall see later could be considered as instrumental for the internalisation of environmental care and the development of self-regulation on the basis of ICEM.

It is important to indicate at this point that the self-regulatory initiatives in the area of the external environment, culminating in ICEM, were taken independently from the same developments in safety and health regulation, we discussed earlier. For a long time, since 1896, the Safety and Health legislation was very much linked with the implementation of the old Nuisance Act - even the Labour Inspectorate functioned as a control agency of municipal Nuisance Act-authorities till the late seventies. The Department of the Environment was set up in 1971. It was detached from the ministry of Social Affairs. Together with the Health Department, it constituted one ministry. Later, in 1982, it was combined with the Department of Housing and Planning in a new ministry.

Indeed, one might observe that the way industry dealt with the first voluntary initiatives regarding ICEM was strikingly different from the top-down `regulated' self-regulation of safety and health systems. The latter remained for a long time to be seen as a legislative monstrum, for which industry did not care too much.

The voluntary introduction of ICEM in the Netherlands was more or less confirmed and `codified' by the EMAS-regulation. This, and the fact that ICEM was introduced on a voluntary basis, might have been instrumental in the relative enthusiastic reception of ICEM. It facilitated the penetration of the self-regulatory ideas in Dutch government-industry relationship.

In the last three decades the self-regulatory activities of safety and health on the one hand and of the environment on the other have been playing leap frog. Therefore, it is not surprising business wants to combine the two systems of self-regulation because of the synergetic effects this may have on their management (cf. Zwetsloot 1994). Given the differences in historical, political and structural development of both systems, we have enumerated, such a combination will be hard to realise.

Implementation practices

In a recent study on the development of ICEM in Dutch companies, we have focussed on the

negotiations between these companies and the authority competent to grant environmental permits. What exactly happens in the development of relationships between government officials and company representatives during the process of standard setting and preparing environmental permits? This research sheds some light on the changing culture in the communication between government and industry (Nijenhuis & Aalders 1995). In looking for solutions for the problem of compliance with the objectives of environmental policy and the requirements of environmental legislation, government and firms not only frequently interact, but also improve their way of interaction and communication. Information about each other's daily routine, production methods, norms and values is exchanged in a prolonged learning process, actually meant as preliminary consultation before the formalities of the legal permitting procedure start. A kind of `morals by agreement' (Gauthier 1986) emerges from the consultations.

In the research mentioned, a number of sixteen companies, mostly of a complex character, such as chemical and metallurgic industries, having established a linkage between their ICEM and the environmental permit under the Evironmental Management Act, or in the process of doing so, were interviewed, next to the competent authorities. These companies have been promised the advantage of a more flexible permit with requirements that give them more leeway to `self-regulate' than the traditional permit allowed. Consequently, it was said in a government paper on ICEM (Netherlands Parliament 1989) enforcement practices would be more lenient. For this permit to be effective it is necessary that a basis of mutual trust is being created between the two `parties'. Representatives of both the competent authority and the firm have gone through a lengthy process of consultation about the application for the permit. After regular consultation, in some instances taking one or two years, government has a much better knowledge of what is taking place on the shopfloor and firms have more insight in what exactly is expected from them and how they should act upon the various requirements. The firm is able to formulate its own requirements, so to say, on the basis of its ICEM. Negotiations on this horizontal level contribute to the feeling that the permit eventually is more of a contract under civil law than a one-sided decision by the government by way of an order ("*beschikking"*). The problem is that although the Environmental Management Act actually is sufficiently geared to grant such a permit with open norms, it gives no clue how to enforce them. Moreover, third parties do not have enough access to information to be able to decide if they want to appeal the permit. A bill is now pending in parliament that would make annual environmental reports mandatory for a category of about 325 big companies. The reporting requirement is linked to existing regulations covering ICEM. This would bridge the information gap for environmental NGO's.

In about ten of the sixteen cases studied the linkage of ICEM with the environmental permit proved to be something of a success (Nijenhuis & Aalders 1995). The others failed, because either the firm asked for much more flexibility than allowed by the authorities, or government eventually opted for a more strict permit. More recent results of the study, which is still in progress, showed, that the enforcement of these `flexible' permits poses severe problems for inspectorates of environmental agencies (Schaapman, Aalders & Wilthagen 1996). In the field of enforcement of environmental regulation the contradiction between accomodative, communicative approaches and stringent, deterrence-oriented, rule-abiding approaches is felt personally by controlling officers. It is frustrating to `go by the book' when your colleagues are experiencing the goldfish bowl warmth of cooperation and communication. Sanctions are not easily implemented in an atmosphere of co-regulation. To solve this problem enforcement personnel is invited to join the consultation in a very early stage of developing, so that they do not feel the odd man out by the time the permit and its requirement actually have to be enforced.

III   REFLEXIVITY AS A NEW PARADIGM

There is a common agreement in Western societies that a legislative framework is needed to guide

industrial behaviour and to guarantee rights for workers as well as for the environment and for non-governmental organisations and individuals on the environmental issue. But can a normative ordering on state-level, with its fallible control mechanisms, exist together with internal safety and health and environmental standard setting and monitoring by the very industries that are to be regulated? Some observers of public administration argue government should be `reinvented'[7] and more power should be delegated to groups and associations, being capable to take self-regulatory measures. The `regulatory trilemma' - i.e. avoiding incongruence of law and society, over-legalization of society and over-socialization of law (Teubner 1989: 309) - must be solved. Not only government but also industry, workers and environmental organisations should play a part in fighting the problems of the environment and safety and health. Politics should strive for regulating conflict instead of institutionalising public policy. Certainties about substantive values in our pluriform society are gradually being replaced by certainties about procedure and methods that guarantee the logical consistency of a normative discourse.[8]

In both regulatory arenas we have noticed a preference for a flexible, compliance-oriented, informal style, instead of a stringent, deterrence-oriented, legal one. This observation still holds if we acknowledge the fact that in countries such as Germany and the Netherlands a more deterrence-oriented criminal law approach has been called for in environmental regulatory policies (and to a lesser extent in safety and health policies as well).[9] Following Treiber (1985), the flexible, compliance-oriented enforcement strategy may be called `reflexive'. Treiber has argued that reflexive mechanisms such as informal negotiations and agreements have always existed in the shadow of codified law. Their function is to produce an integrative effect which is defined as: bringing about solutions to conflicts in cases where strict adherence to legal structures would only aggravate those conflicts. In practice, regulatory policy seems to generate the conditions for its own (relative) success in that it institutionalizes systems of negotiation of a self-regulating or reflexive nature. Inspectors always have been aware of the self-referential nature of economic decision-making and behaviour and the immunity and indifference to other interests that originate from this.

Indeed, informal processes in public administration are nothing new. In 1940 it was already said that informal procedures in addition to or instead of formal legal procedures are "the lifeblood of the administrative process".[10] The growing complexities in a changing society ask for different steering mechanisms. These mechanisms are chracterized by consultation and negotiation on a horizontal level between regulators and the regulated. The administration becomes a place for consultation, where two equal parties try to achieve a good result in accordance with the interests of both (win-win-situation).[11]

But in spite of these symbolic words about non-hierarchical relationships between administration and citizens or business associations, government still endeavours to directly steer the activities of firms to comply with the law. Few policymakers realize that there is `regulation in many rooms', paraphrasing Galanters' `justice in many rooms' (1981). The "public sphere" of the regulatory universe is but a small part of the process through which society regulates itself. Indigenous regulatory systems are as important as formal social ordering provided by the state (Weiler 1995: 107). The legal process is first and foremost a problem-solving enterprise, rather than a system for ensuring accountability to rules (Rees 1988: 12).

Regulatory activities are not only to be observed inside the government but also in the inner realm of the very companies of which the polluting activities and the safety and health situation are the object of formal socio-economic legislation. We have called the phenomenon of in-company environmental management a form of `self-regulation'. The question is, if this self-regulation really is generated by `the self', i.e. the organisation or group, where `otherwise' governmental rules had to be introduced and to be adopted. Presumably self-regulation is nothing short of an internal regulatory process induced by government. Having said that, we must be aware of the inherently illogical consequence of this statement. Precisely the lack of impact of government regulation invoked the search for other means of policy implementation. If the `implementation gap' is really to be bridged by other policy instruments, particularly communicative instruments, and if industrial conduct actually could be influenced after all, how are these processes of communication to be defined? Are not government and

economic life so different in objectives, structure and culture, that they could not really determine the activities of one another? In order to find a direction of solutions for the above-mentioned problem, we need a theory that may provide us with, for a start, an adequate and promising definition of the problem.

The Concept of Reflexivity

To answer these questions we introduce the concepts of *reflexive law* and *autopoiesis*, developed by Teubner (1983; 1989). Reflexivity is one of the key concepts in post-modern images of human culture and society as well as in second order cybernetics and system theory. In his seminal work on the substantive and reflexive elements of modern law Teubner (1983) compared the views of Nonet and Selznick (1978) on the one hand and Luhmann and Habermas (e.g. 1975) on the other, by introducing the concept of reflexivity in the study of law and regulation. Society is characterized by the `horizontal' emergence of social subsystems such as the legal, economic, scientific, political and religious subsystems. Each of these communication systems is of a self-referential nature: the subsystem is tied to its own specific binary code which governs and structures all its operations and communications, e.g. payment/non-payment (economic system), legal/illegal (legal system). Self-referential or *autopoietic* systems are considered operationally closed for intervention from the outside, e.g. by means of legal regulation. However, - and this is the central `formula' - informational openness exists at the same time, as subsystems create `internal order' from `external noise'.

To adequately understand the logic of economic organisations such as enterprises, Teubner thinks it necessary to simultaneously take into account the following three dimensions:

(1)   The enterprise's *function*, i.e. its relationship with the economy and society - to guarantee as high yields as possible for the satisfaction of the needs of society.

(2)   The enterprise's *performance*, i.e. its relationship with various environments (work, social, medical, natural and technical environments).

(3)   *Reflection*, i.e. the enterprise's relationship with itself. Through processes of self-observation and self-regulation the enterprise defines its social identity (Teubner 1994: 44). Function and performance can only be mediated internally by reflexive processes. Reflexivity is the `re-entry' of the difference between system and environment into the system.

With respect to the possibilities and different strategies of regulating safety and health and the environment, Teubner's central question appears highly relevant:

> `*Steering by means of governmental economic policy using legal programs that regulate behaviour, or steering by decentralized mechanisms of self-regulation whereby state law only regulates general conditions?'* (Teubner 1989: 85, translation by the authors)

No doubt, from his theoretical point of view, Teubner opts for the second strategy. He argues that societal integration has to take place at the level of the social subsystem by building restrictions into the `reflexion center' of the social subsystem. In that way the internal reflexion of social identity could be guaranteed or at least stimulated. Law and regulation can only be successful as far as they facilitate and reinforce internal reflexive processes. External control only makes sense in an indirect way and as the regulation of self-regulation.

The fact that a subsystem is cognitively open renders it possible for an enterprise (as a part of the economic subsystem at large), while improving its function, to synchronize this development with public policy regarding the advancement of performance objectives through the enactment of legislative programmes. This may happen by its self-referential capacity, by observation or by `reading' the environment inside the system and `checking' its own normative framework and capacities.[12]

This does not detract from the fact that the existence of some legal framework between the two systems is possible. The relative insulation of systems leaves the judicial contextuality virtually intact. For instance agreements between government and corporations are examples of facilitating, integrating, reflexive law, law that is principally procedural in character. In the Netherlands agreements between the

State and various industrial associations have been successful in achieving compliance with certain environmental rules. This we might typify as law that facilitates and integrates, in other words reflexive law, through which informal action may be legalized in ways that are typical for the rules of contractual relations which industry and business are used to apply (Koppen, 1994). Differences between the two systems are thus reduced and brought to a minimum. New forms of quasi-contractual arrangements of a private character, but bound by margins set by public law principles, are emerging in Dutch strategic discussions between government and industry. Koppen (1994: 201) calls this "the explicit recognition of new forms of legal formality that emerge as the outcome of the informal negotiation process."

Another example of such a `policy' is government stimulation of ICEM, which will be linked to environmental permits on the ground of environmental legislation (Aalders 1993). This is a good example of the transcendental or cooperative regulation some governments in modern societies try to establish. We are not concerned with pure self-regulation, for we have already concluded that this can hardly exist, at least in government-industry relationships. But it is a form of conditioned self-regulation, because, as the government paper on ICEM (Netherlands Parliament 1989: 3) formulates it, the linking-process makes the ICEM `less non-committal'. The ICEM will become part of the permit as a side-effect of linkage. A hardly concealed `deterrence' element creeps in: "companies not having an efficiently operating environmental management system at their disposal will, in the government's view, sooner be considered for intensified enforcement activities by competent enforcement authorities relative to companies which are trusted to have an efficiently operating environmental management system".[13]

It is only one step further to leave enforcement activities entirely to the `regulated' enterprises. Privatized enforcement by audit-firms, which verify the performance of the firms, would be nothing less than replacing government control. In fact a Dutch Government Committee on the assessment of legislative projects even advised in its report on legislative policy for occupational safety to abolish State regulation and leave the resolution of disputes on that matter to the employer and employee involved. In the Committee's view the civil liability of an employer for occupational safety should be amplified. Government control should be restricted to enforcing the duty to take care of occupational safety. Naturally, in this view it is the judiciary that should play a role as an impartial body for resolving disputes, provided the possibilities for collective action and citizen's suits are enlarged (see generally for the notion of `empowerment' Handler 1992). Standards should be developed, both by independent standardising institutes installed by industry itself, and by insurance companies.[14] This view is in accordance with Ayres and Braithwaite's concept of `tripartism' (1992: Ch.3), whereby public interest groups (PIG's), or third parties should be empowered to compete with government and industry. They do not actually want to strengthen the role of the judiciary, like for instance Sunstein argues (1990, cit. by Ayres and Braithwaite 1992: 18).

Of course the environment should not be left totally at the mercy of the market (cf. Teubner, Farmer and Murphy 1994). Degradation of the environment cannot in all its various aspects be equalled to the individual rights of natural or legal persons. The dangers of the depletion of the ozone-layer provide a salient example. If in other domains, like safety and health, the actors are more or less represented in the arena by equality of arms (at least to some extent), this cannot be said for the environment. Consequently, legislation is necessary to conduct procedures and facilitate negotiation. Provisions should be made for access to information that is exchanged by government and industry. Citizens should have the opportunity to participate in the decision-making process and have access to justice to defend the environment. The Dutch Enironmental Management Act provides an *actio populuris* for complaints against administrative orders. In the Netherlands in civil law suits environmental organisations may stand up for a general interest like a clean environment.[15] If they did not have `*locus standi*', then protection of environmental rights against threatening impairment of environmental interests were significantly impeded.

IV   REFLEXIVE STRATEGIES

Fout! Bladwijzer niet gedefinieerd.

From the foregoing paragraphs it can be argued that adequate and efficient strategies should focus on the *regulation of self-regulation*. These strategies should aim at incorporating *preventive* conditions regarding safety and health and the environment into corporate behaviour and decision-making. This conclusion is perfectly in accordance with Teubner's theoretical position (as described in paragraph III), but from a policy point of view it may not be very satisfactory. What kind of strategies can be envisaged if we rather not stick solely to theoretical analysis? What are the consequences of corporate self-regulation for state functions, such as the ordering of risk-bearing activities. These consequences relate to access to information and access to justice by the public at large, and to democratic control of enterprises' behaviour. These consequences concern the whole of society and should not be ignored. Problems of democratic decision-making and the rule of law could partly be solved by the following legal and non-legal, public and private strategies.[16] These strategies are: systems monitoring (1), intermediary structures and networks (2), corporate social responsibility (3), and other market-oriented regulatory tools (4).

1.   Systems Monitoring
The thought of regulating self-regulation is rather explicit in the approach that may be labelled *systems monitoring* or *systems enforcement*. In this approach the inspectorate takes into account its limited capacity and scarce resources and tries to promote, facilitate and monitor internal control systems in companies. As mentioned in this paper, the Dutch Labour Inspectorate has been developing an overall strategy of `system enforcement', which is due to replace the traditional shopfloor inspections. Instead, inspectors are supposed to monitor and regulate the operation of self-control systems and, subsequently, intervene at system level. This holds for the environmental inspectors on the provincial and municipal level as well. There is no doubt systems of self-control and self-evaluation will gain more importance in the near future as a consequence of European law, notably the Council Directive on the introduction of measures to encourage improvements in the safety and health of workers at work and the EMAS-regulation (1993).[17]
        In general a strategy of regulating in-company management systems seems promising, because its focus is strategic intervention into certain characteristics of the organisation's decision-making process. However, this approach presupposes that:
(i)   the decision-making process of all categories of firms and institutions (size, branch, hazards) can be influenced by stimulating or requiring internal safety and health and environmental management structures;
(ii)   wherever absent, these structures can be established or promoted by law or regulatory agencies;
(iii)   management systems show sufficient dynamics to warrant ongoing and profound activity (attention should not be incidental or limited to minor matters). Safety and health systems and ICEM should not be isolated from the company's general management system;
(iv)   regulatory agencies are capable of judging the actual performance of management systems and in case of a negative judgment these agencies are capable of making or promoting adjustments.

Considering these presuppositions several problems become clear. Especially small firms are not likely to be regulated successfully by internal management systems. The dynamics of an internal management system largely depend on the presence of countervailing powers. Internal checks and balances have to be warranted notably by workers and their representatives (trade-unions, work councils and safety and health committees), keeping a close watch on the progress and realization of the environmental working condition programmes and plans that are being drawn up. It is clear of course occupational safety and health, and ICEM are industrial relations issues. However, it is still beyond dispute that there is an imbalance of social power in the workplace and that goes for the environmental arena as well. Environmental NGO's lack sufficient countervailing power.
Having said that, it mus also be clear, that in the new regulatory approach inspectorates should take great

pains over promoting democratic structures and procedures in companies, in order to strengthen business' learning capacity and reflexive processes. Sometimes the inspectorates will need to use `the big stick' to stir employers and employees, as self-regulation remains not only the pillar but also the `Achilles heel' of successful safety and health and ICEM policies. To sum up, we may borrow Rees' statement, that "if a firm has a strong indigenous regulatory system, a regulatory task environment that readily lends itself to consensual problem solving, and workers who would directly benefit from a strong self-regulation program, then that firm may well be a good candidate for mandated self-regulation (..)" (Rees 1988: 238). At the same time we must emphasize the insufficiency of a systems control that is only directed to `good apples' and to leading companies, while leaving the more serious problems in small companies untouched. Such a development would result in good companies turning out to be evironmentally performing better all the time, while bad companies are performing worse.

Moreover, it should be crystal clear that structures, procedures and reports do not guarantee changes and results (anything can be put on paper). Monitoring presupposes the existence and use of substantive norms in order to check on actual performance. On the spot examinations of working conditions will remain necessary and the results must be explicitly used to evaluate the company's performance. From this point of view it may again be recommended to try and increase the social visibility of firms, e.g. by introducing `right-to-know' provisions on behalf of trade unions and environmental NGO's, social security agencies, environmental organisations or the public at large (see Gunningham 1994).

However, the most prominent and critical danger threatening the development of systems control approaches is represented by politics turning to deregulation and privatization. The concept of systems control runs the risk being misinterpreted (or misused) as a mere strategy of `tackling regulatory burdens to business' in the alleged `global economy'. There is every reason to argue whether systems control is at all possible and advisable in the absence of substantial involvement of the state and its agencies (cf. Gunningham 1995). In any event, in the Netherlands political turbulence caused uncertainty and confusion in state agencies such as the Labour Inspectorate, even before systems control approaches were strongly rooted in daily practice.

2.   Intermediary Structures and Networks

Intermediary structures are an important element in using reflexive strategies. Trade associations, employer associations, district Safety and Health Committees or other *networks of business* may function as channels of indirect regulation, when contacted and adequately informed and influenced by regulatory agencies. Small firms in particular rely on such organisations for information, advice and support. They may be easier to grasp by this indirect route than by means of direct regulation.

Intermediary organisations and committees of mixed government and business representatives in the Netherlands constituted semi-regulatory bodies for the organisation of waste disposal. Industry associations have been instrumental in conveying the government message of good environmental house-keeping to their members. The Dutch Ministry of Environment made agreements on the basis of contract law with industry associations (metal-, electricity-, packaging- and chemical industry) in which environmental assignments or missions were stated and programmes were indicated to achieve the fixed objectives (`environmental contracting'). Lawyers in various instances could play a role as intermediary persons. Sometimes they act as `guardians of the public interest', sometimes they have it in their power to sabotage regulation (Macaulay 1993). They succeed in mitigating government action or enforcement in defence of the enterprise. But on the other hand they could change managers' minds and gently direct them to more environment friendly behaviour. One may compare this function with the *reflexion structures* in social subsystems that, as Teubner supposes, "resolve conflicts`between`function and performance by imposing internal restrictions on given subsystems" (Teubner 1983: 273).

3.   Corporate Social Responsibility

The concept of *corporate social responsibility* or *enterprise liability* explicitly refers to the necessity of

the internalization of `external' goals and values. This moral or ethic concept was developed in the 1950s. It opposes the classical view that the mere aim of business is wealth maximization for its shareholders or owners. The corporation is placed in a wider social context and, indeed, the question is about business self-control (Selznick 1992: 350; see also Rees 1988: 230 ff.). Of course the company adheres to these moral values out of enlightened self-interest. A fine example is the self-regulatory Institute of Nuclear Power Operations (INPO) in the United States, described by Rees (1994). The INPO was established by the nuclear power industry after the Three Mile Island incident. As an institute of social control it works even better than the government Nuclear Regulatory Commission (NRC).

Moral concepts are not likely to be smoothly transformed into clear policies and strategies. However, to be meaningful, moral competence has to be built into the social structure of the corporation. Gunningham (1995) reports on the chemical industry's Responsible Care Program, a self-regulatory scheme, intended to reduce chemical accidents and pollution and to involve the community in decision-making. His research, concerning the larger companies in Australia and the U.S., shows a diminishing support for the scheme, which he argues might not be so important if the original structures of Responsible Care were sufficiently strong to deter potential defectors from withdrawing their commitment. But they are not (ibidem: 93). He opts for co-regulation between government and the chemical industry, which could make Responsible Care work.

Methods have to be developed to increase corporate social responsiveness. Selznick points to institutionalization as the main strategy, having faith in `the benign face of bureaucracy' because it generates specialized units and internal interest groups (occupational safety is one of the examples) in the company that is capable of determining policy, monitoring practices and establishing appropriate procedures (Selznick 1992: 352). Other more concrete suggestions are to stimulate corporations to add some form of social reporting and auditing to their balance sheets and to include moral and social issues in leading business training programmes and courses (Sigler & Murphy 1988: 53).

4.   Market-oriented strategies
A `structural coupling' of economic decision-making on the one hand and occupational health and safety and environment interests on the other might be attained by including the latter aspects in widely accepted industry standards and norms. A good example is the set of product quality norms that has been issued and codified by the International Organisation for Standardization since 1987. These norms - ISO-9000 to ISO-9004 - have already been accepted in fifty countries and firms are eager to `earn' the ISO-certificates as proof of the quality of their organisation and production processes, thus strengthening their competitive position. Increasingly, large enterprises require their suppliers to be ISO-certified.

For global environmental management the ISO-14001 standard was developed and in april 1996 a draft version was adopted by a majority of the 41 countries that participated in the drafting. The definite text will presumably be ready by the end of 1996. Negotiations have been held up by differences in opinions on which elements should be incorporated into the standards. Countries like Japan and the United States do not want to go as far as the member-states of the European Union in adopting the BS 7750 standards set by the British Institute for Standardisation. BS 7750 for instance commits industry to provide for various reports on the environmental consequences of industrial processes and the Americans fear the challenging by companies of these regulations in court. The final version of BS 7750 was presented in 1994. Certification according to this standard is possible in the United Kingdom and some other European countries. By 1995 BS 7750 was the standard for a number of multinational companies.

Finally, on the other extreme of our continuum we find the possibility of sheer *market regulation*. Siebert (1991) concludes for the British situation that labour markets are indeed self-regulating, as wages reflect risks: compensating wage differentials deter accidents and reward risk-bearing. Such differentials are allocated by the choices and actions of the workers involved, the firm and the firm's insurance company. The following advantages of market regulation have been suggested: independence from outside agencies that are not familiar with actual risks, independence from the firm's size (it applies to small enterprises without union safety representatives as well as to big companies) and

last but not least a supposedly much greater effect than the expected penalty for violating a safety standard.

Such a market view is rightly criticized by Felstiner and Siegelman (1989), who focus on the case of workers that suffer latent occupational injuries (such as asbestos). Their objection is that workers usually do not have sufficient information on the risks of work and that, moreover, workers often do not make rational choices regarding occupational risks. Generally, adequate market regulation depends on market transparency, which is to a large extent absent in the case of occupational safety and health. Thus, it remains to be seen to what extent insurance companies can make a contribution to increase work place safety because of `their natural interest in maintaining a downward trend in accidents and, much more potent, their fear of future claims on risks which cannot easily be estimated'.[18] Nevertheless, in occupational safety and health the innovative potentials of a variety of economic incentives are currently being explored. As long as one does not consider these incentives a panacea, it seems worthwile to assess the extent to which they may contribute to a safer workplace (see Bailey et al., 1995).

As regards the environment, multiple forms of market regulation are being tested, in the USA as well as in Europe. Examples are the development of EPA's emission trading programmes (offsets, netting and bubbling), the acid rain program, `open market' trading. Also the new focus on `flexible permits' (Nijenhuis en Aalders 1995) which involve emission caps as a way of giving industry a less costly way of meeting regulatory requirements and which encourages pollution prevention could be considered as a compensation for one-sided market-interference by government regulation.

V   CONCLUSION

Should external and internal modes of regulation of the general environment and the work environment be interrelated to further improve health and safety and environmental standards? We noted that there is a trend away from direct and stringent government regulation towards more flexible, lenient control mechanisms characterized by `conditioned self-regulation' or `cooperative regulation' regarding potentially harmful business activities. Various concepts are currently being proposed, such as the phrase *responsive law* coined by Nonet & Selznick (1978). This trend has important consequences for the enforcement of corporate regulation, not yet fully understood and considered in most governmental bureaucracies.

From responsive law the concept of `*reflexivity'* was developed by Teubner. We suggested this concept, referring to the economic organisation's relationship with itself, as a possible solution to the problem of regulatory failure. We explored the practical usefulness of this theoretical concept and concluded that neither spontaneous self-regulation, nor the impact of external regulation have been satisfactory. Therefore, a mixture of legal and non-legal, public and private strategies is considered necessary, such as: systems monitoring, intermediary structures and networks, corporate social responsibility, and market-oriented strategies.

The mode of reflexive administrative law we see as appropriate for the solution of the regulatory dilemma requires a `negotiating regulatory framework' to be effective. A `negotiating government' together with all concerned parties somehow should learn to cope with issues like third party interests, access to information and enforcement. Communicative aspects of a negotiating government are important to effectuate reflexive rationality. Government should realise that there is `regulation in many rooms' and that it is necessary to `regulate' self-regulation in firms, which corresponds to the idea of `reflexive law'. Reflexive law "will neither authoritatively determine the social function of other subsystems, nor regulate their input and output performances, but will foster mechanisms that systematically *further the development of reflexive structures within other social subsystems*" (Teubner 1983: 275, *emphasis his*). This, of course needs new socio-legal perspectives of regulatory governance and (self-)regulatory processes.

We would like to conclude with a few reassuring words to the true believers in command and control regulation. The fact that the role of the State is changing and relationships between government and industry are deformalized, does not mean that the influence of the State is decreasing. As Abel (1982: 268) puts it, informal justice can even extend the ambit of state control. It gives the opportunity to control more behavior, because coercion becomes less vigorous and less visible (see also Cohen, 1985). It also requires lower state expenditures per case, so that more intervention is possible within the same budget. The history of the two selected regulatory arenas confirms this argument. A reflexive, negotiating government does keep (and needs) certain teeth and claws, as Teubner (1992) has worded it.